The Baillie Lectures

ON

DROPSY.

Delivered at St. George's Hospital on June 19th and 26th and July 3rd, 1895,

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LECTURE II.

Delivered on June 26th, 1895.

GENTLEMEN,—I propose to devote the two remaining lectures to the subject of dropsy, one which has its points of contact with the cardio-vascular question which occupied the first, and is of paramount interest to the physician as connected with many diseases and productive of many results. Dropsy, like many other morbid conditions, is merely an exaggeration of a state of health. There is a continual outpour of lymph from the capillaries, some of which is employed in nutrition, some absorbed by the lymphatics, and some by the veins. In health this fluid is carried off as fast as exuded so that there is no accumulation; if there be accumulation it constitutes dropsy. This may be produced either by an increase of outpour or a diminution of removal; and the diminution of removal may be hypothetically attributed either to the veins or the lymphatics. I shall endeavour to show how these processes or failures to proceed are brought about, and what bearing they have upon the symptom in question; and my point of view, I need not say, will be mainly clinical or from the standpoint of human pathology. First let me exclude inflammatory effusions from present consideration. Looking at dropsy products for information as to dropsy processes we are at once confronted with the fact that this effused liquid in a given situation is much the same whatever the disease which has given rise to it. It varies much with place; little with origin. I have dwelt upon this fact in a paper to which I may venture to appeal[1] for particulars. I will here content myself with reproducing the average results of a series of estimations which I have made from time to time as opportunity offered; there to be found in detail.

Average Constituents of Dropsy Liquids in 100 Parts (from observations by Dr. W. H. Dickinson).

Disease.	Pericardium.			Pleura.			Peritoneum.			Cellular tissue.		
	Specific gravity.	Albumen.	Mineral salts.	Specific gravity.	Albumen.	Mineral salts.	Specific gravity.	Albumen.	Mineral salts.	Specific gravity.	Albumen.	Mineral salts.
Disease of kidneys	—	—	—	1011·6	0·816	0·824	1012·1	1·36	0·875	1008·3	0·121	0·844
Diabetes, no injection...	—	Much	0·64	—	—	—	1018·2	2·41	0·908	1012·2	0·362	0·833
Diabetes, after saline injection*	—	—	0·860	1016·7	2·10	0·845	1013·5	1·38	0·871	—	—	—
Disease of heart...	1018·5	3·08	—	1013·3	2·119	0·784	1014·5	2·63	0·783	1008·5	0·36	0·785
Disease of respiratory organs	—	—	—	1013·5	1·91	0·826	1017·9	3·13	0·840	1008·1	0·235	0·773
Cirrhosis of liver	—	—	—	—	—	—	1012·8	2·25	0·842	1009·5	1·39	0·804

* These estimations relate only to a single case.

The first fact to be noticed is the uniformity of the mineral salts. In every place and from every cause these salts present nearly the same proportions—almost exactly that in which they exist in the blood. This looks as if they owed their exit to some unvarying physical law like osmosis or dialysis, and to this we may fairly attribute the presence of these crystalloids in the effusions of dropsy. No such uniformity holds with the albumen, which varies much—more with the location than the disease. Œdema fluid contains only traces, whatever the cause may be; when cardiac, the albumen is greater by about one-half than when renal. Pleural and peritoneal effusions are always highly albuminous, sometimes the pleural more than the peritoneal, sometimes the reverse. When due to heart disease, the effusions contain more albumen than when due to kidney disease. The peritoneal effusions of cirrhosis of the liver occupy an intermediate place in this respect. The smaller amount of albumen under kidney disease corresponds with the reduction of this substance in the blood in the same condition. With this allowance it may be said that the effusions in each place are much the same in every disease, a resemblance which suggests that there must be considerable resemblance also in the processes by which they are produced. The saline ingredients are probably the simple results of dialysis. The albumen as a colloid body cannot traverse by this means but obtains its passage by pressure, by secretion, or by both together. Looking briefly at some of the physical facts which bear upon the subject we first have osmosis or dialysis, in virtue of which crystalloids traverse membranes until the liquid on one side is as fully charged as that on the other. This does not explain dropsy but only accounts for the saline constituents of dropsy fluids. Colloids such as albumen do not so traverse if the pressure on both sides is equal, but if it be unequal, then albuminous fluid-serum, for example, passes with facility in the direction of least resistance. In experimenting with membranes and liquids with regard to the processes of dropsy, so far as they could be imitated outside the body, the agent which presents itself as efficient beyond all others in moving albuminous fluids, and indeed fluids of all sorts, through membranes is pressure. If serum be placed at different levels on either side of a membrane the liquid will quickly traverse in the direction of least pressure until an equilibrium is attained. The action of osmosis is insignificant. It is true that if we put on either side of the septum liquids having opposite or very different chemical properties, acid and alkali, alcohol and water, &c., we may get osmosis which will be abundant against gravity and pressure; but such large transfer has always been between liquids which have been contrasted beyond what is possible in the process of serous effusion. As an agent in dropsy osmosis may be put aside as taking little part in it. Intravascular pressure and some process outside the vessel akin to secretion, the one physical, the other vital, remain for question. The action of the physical agent is certain and obvious, that of the vital is hypothetical. The overruling influence of pressure in the transmission of fluids, whether along vessels or through membranes, needs no insistence; it is the chief agent in the circulation and in all that depends upon it—exudation, nutrition, and cell function.

For the purposes of practical medicine dropsy may be described as having two modes of origin—(1) increased blood-pressure and (2) alterations in the blood itself, which two conditions often occur together. I am not about to dwell on the physiological or experimental aspect of dropsy as it relates to the lower animals so much as upon the clinical and human, but a word or two as to the results of experiments on animals may be introduced. The simple observation was made over two hundred years ago by Lower that ligature of the vena cava was followed by dropsy of the parts below. Subsequent experimenters failing to get œdema as the result of simple ligature found it to be produced when in addition to the ligature upon the vein the nerves of the limb were cut. That section of the vaso-motor nerves should enhance the effect of venous obstruction is only what would be expected. Venous impediment fills the capillaries much; vaso-motor paralysis,

[1] On Renal Dropsy. Transactions of the Royal Medical and Chirurgical Society for 1892, vol. lxxv.

by increasing the arterial supply, must fill them more. Again, it has been found that ligature of the lymphatics promotes the process of dropsy. This, again, is only what might have been presumed. Dropsy fluid is the excess of capillary exudation over absorption; the less removed the more must remain. Practically, however, lymphatic obstruction may be put aside as a cause of dropsy in the human subject. Obstruction of the lymphatics causes, as we know, elephantiasis and chyluria, but not dropsy. Dr. Lazarus-Barlow, of this hospital and Cambridge, has recently made some careful experiments on this subject, which require to be considered in conjunction with those referred to. He showed that œdema did not come on *immediately* upon ligature of a vein—that is, not within an hour. I presume it did so ultimately. This negative result has little bearing on human pathology, where we have to do with long-continued conditions. Dr. Lazarus-Barlow is opposed to the mechanical theory of dropsy, and attributes much to anæmia of the tissues and the accumulation in them of waste products. Those who wish to follow Dr. Lazarus-Barlow's experiments must read his paper. As concerns human pathology it is not possible to doubt that increase of intra-vascular pressure, whatever be the intermediaries, has a paramount concern in the production of dropsy, while the establishment of toxic conditions—poisoning of the blood and tissues by excrementitious matters—has also a bearing on the morbid process.

Coming now to human pathology, the bearing of pressure upon dropsy is well illustrated in œdema. Everybody knows that a limb may swell from no other cause than a tight bandage, or ankles become œdematous only from long standing. Œdema of the legs, whether cardiac or renal, will continually go away under the influence of the horizontal posture; the fluid does not merely shift its position, but may be altogether removed. I have seen this over and over again, and regard the fact as of the first importance in the treatment of œdema of every kind. With mechanical advantage the veins empty themselves and allow the capillaries to do the same, while exudation lessens as intravascular pressure diminishes. The effects of venous obstruction, or, in other words, of increased pressure within the tributary vessels, are illustrated with sufficient simplicity by many forms of local dropsy. The consequences of the closure or narrowing of veins, whether by internal clot or external compression, are so well known that I need not dwell upon them. Œdema limited to the regions drained respectively by the vena cava, an innominate, or a femoral is so constant a result of venous obstruction that we have no hesitation in diagnosing a mechanical impediment as soon as we discern the local œdema.

One of the most instructive, and to the physician one of the most interesting, of the local dropsies is hepatic ascites. Cirrhosis puts a ligature, so to speak, or rather a multitude of ligatures, on the portal vein in its ultimate distribution in the liver, and all the portal tributaries become overfull and overtight until their contents in whole or part are forced through their walls by accumulating pressure and discharge blood or serum according to their position on a mucous or a serous surface. Thus we get hæmorrhage from the stomach and bowels in one case and in another ascites; seldom both together. The vessels are relieved either by bleeding or dropsical effusion; seldom by both in the same person. I have known the abdomen to break open through the umbilicus as a result of this form of ascites; and it is well known that gastric hæmorrhage as a result of portal obstruction may be fatal on the spot. In connexion with the mechanical and unyielding origin of hepatic ascites I may say a word as to the treatment of this the most obstinate of all the forms of dropsy. Ascites of other kinds—cardiac, renal, and tuberculous—will continually yield to treatment or time, but this seldom does so. It is remarkable how frequently ascites of tuberculous origin will take itself off notwithstanding the permanent nature of the cause to which it is due. I have got to regard a child with a tuberculous and watery abdomen with something of affection, as one which is likely to do me credit; so also may we obtain credit, though perhaps sometimes nature deserves it, with the ascites of heart disease and of kidney disease; but hepatic ascites usually holds medicine in scorn. Theoretically, purging should do good by relieving the portal pressure, but, as Sir Thomas Watson said, it must be hard purging, and even that is not productive of commensurate results. Practically we can do little. Reputed diuretics are in my experience useless. When extreme distension is reached, so far as to embarrass the respiration—and this is the rule I lay down for myself—we must tap, and the later the better, for tapping is generally the beginning of the end. The operation has to be repeated with lessening intervals until the patient succumbs. This is the rule; I will not say that there are no exceptions, but they are certainly few. I have often been struck with the enormous amount of fluid of this origin which may be carried about with the maintenance of fair general health and mobility.

I shall touch presently upon the general relation of drinking to dropsy, but in the meanwhile I will say with regard to hepatic ascites that in despair of other means I have tried dehydration by diet. Diminishing the volume of the blood must lessen the ascitic tendency by reducing the amount which has to make its way through the portal vein; we cannot widen the street, but we may diminish the traffic, and so do away with the block. In another point of view the blood has the property of maintaining or restoring its composition at the expense of anything else available; hence if we dehydrate the blood that fluid may recoup itself at the expense of serous effusion—for the effusion after all is chiefly water. A boy aged seven came under my care in this hospital on April 24th, 1886, with extreme ascites, a greatly enlarged liver, and a history of drink. According to his own account he "had beer to drink on week days and gin on Sundays, and liked the gin best." The distension was extreme, and the distress and dyspnœa such that early relief was imperative. He was tapped with Southey's tube six days after admission, again the next day, and, the fluid rapidly recollecting, for a third time four days later. To sum up, he was tapped ten times between April 28th and June 21st, and a total of fifty imperial pints removed; on an average he was tapped every five days and a half to the amount of five pints, pretty well considering that his weight was only 2st. 9lb. Knowing that this process could not go on much longer, I determined to try what could be done by dehydration—in other words, by dry diet. He was tapped last on June 21st; by the 29th the fluid had again reaccumulated to a large extent. I now put him on the following regimen:—Half the fish of fish diet, half a light pudding, two eggs, ten ounces of milk, an ounce and a half of brandy, and some acid drops. No medicine or a drop of liquid of any kind beyond what has been mentioned. On July 3rd the milk was further reduced to six ounces, so that the total daily liquid, including the brandy, was seven ounces and a half. His urine during this time (from July 3rd to July 26th) averaged fourteen ounces a day—nearly twice as much as the liquid he drank. Of course, there was a certain amount of water contained in his solid food which helped to make up the difference. Beyond this he lived upon himself and, so to speak, drank the contents of his own peritoneum. The beneficial effects were striking and immediate, the evil effects none. There was no inconvenient thirst, no dryness of the tongue. The dropsy rapidly diminished, so that by July 21st no evidence of abdominal fluid could be obtained. His appetite was good and he was practically cured of his dropsy, though the liver still remained of large size. He went to Wimbledon Convalescent Hospital on Aug. 18th, from which institution he was shortly dismissed for misbehaviour. He was readmitted into St. George's Hospital on Sept. 22nd of the same year, chiefly in order that he might be examined. There was then no fluid. He had no return of his dropsy. When at home he was allowed but little liquid. To use his father's words, "He was cautious and 'cute enough not to drink much." The last scene opened on Dec. 27th, 1888, when he was readmitted with acute head symptoms, which proved fatal on Jan. 2nd, and were found to have been connected with an abscess of the brain probably due to bone, though the origin could not be satisfactorily traced. This obviously had nothing to do with his former disorder. The peritoneum was universally adherent, the liver contracted and highly cirrhotic, weighing twenty ounces. What had occurred in the process of cure was clear: the peritoneum was emptied and kept empty by dehydration; the two surfaces, no doubt, more or less irritated by what they had gone through, or rather by what had gone through them, quietly stuck together and obliterated the cavity. I have tried this method in other cases of the same disease, but not with equally satisfactory results. The patients were all adults and proved less amenable than the child. I have generally been able by this means to reduce the circumference of the abdomen by two or three inches, but never succeeded in emptying it, and came to the conclusion that the relief was not so great as the inconvenience.

To save repetition I will here venture upon a digression and say something about water-drinking in relation to dropsy in general. *Crescit indulgens sibi dirus hydrops* expresses the belief of antiquity, and that this has come down to modern times is known to the readers of Boswell.[2] Dr. Johnson described the wine in Scotland before the union as "weak stuff, the refuse of France, which would not make you drunk." Whereupon, says Boswell, standing up for the honour of his country, "I assure you, Sir, there was a great deal of drunkenness." "No, Sir," retorts Johnson, "there were people who died of dropsies which they contracted in trying to get drunk." The immortal Pecksniff[3] is at one with the great Lexicographer in attributing dropsy to aqueous drinks. "If we indulge in harmless fluids we get the dropsy; if in exciting liquids we get drunk. What a soothing reflection is that!" The fact is that water does not cause dropsy, but alcohol does, which should be "a soothing reflection" to those worthies the tee-totalers. *A priori*, it might have been expected that much water would cause dropsy by increasing intravascular pressure and diluting the blood; but practically so long as the natural exits are free the excess of water will make its way out by them and not by transudation into the tissues. Water is diuretic, diaphoretic, and purgative, and will not accumulate so long as it can escape. Water may even be a cure for dropsy instead of a cause of it. In acute renal dropsy dependent on tubal nephritis water may be the best diuretic we can employ. It increases the urine, washes out the tubes, carries off the accumulated excreta and relieves the dropsy, together with the other symptoms. I have given a pint of distilled water every four hours with the beneficial results I have mentioned. But if the kidneys are so far gone that they cannot respond the dropsy will be increased instead of diminished; this I have also seen. The contrary plan, the cutting off of water, is one which should never be employed in the presence of renal disease; the dropsy may possibly be lessened, but the tendency to uræmia will be increased. In some forms of chronic renal disease the urine is thin, poor, and copious, and the patient habitually thirsty. So long as he is allowed to drink according to his needs the urine may remain superabundant and make up in quantity what it wants in quality. If on any false theory the drink is restricted what we may expect is uræmia. I will bring this digression to an end with the conclusion that there is a little truth and much error in the old dictum. Water increases dropsy when the kidneys are incapacitated, not otherwise. It is actually a remedy for dropsy when this is caused by nephritis, mainly tubal, and not too obstinate. The great source, at least of abdominal dropsy, is not water, but alcohol.

ON FUNCTIONAL HEART MURMURS: THE MIMICRY OF ORGANIC DISEASE.[1]

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DOUBTLESS all will agree that an occasional survey of the clinical signs and their interpretation, which form the groundwork of our professional opinions, is of service, and that even commonplace subjects, if they happen to be of practical clinical interest, are deserving of our renewed attention. I have not, I fear, much that is new to say about heart murmurs in what I may call their pseudo-form; but if an excuse is necessary for the subject of this paper it will be sufficiently supplied if I succeed in showing that we are not standing still, and that the last word has not yet been said on functional heart murmurs. It is often urged that the study of the physical characters of murmurs is unprofitable, as everyone knows the significance of a morbid sound occupying a given position in the cardiac cycle; and it is further urged that the murmur, in conveying to the mind of a practitioner the impression that the patient is suffering from mitral or aortic disease, as the case may be, conveys precisely the same information to all, and in doing so has, so to speak, served its diagnostic purpose, and there is an end of it. Obviously this view is unscientific, because narrow, and tends to shut the door against further research; indeed, it forecloses discussion, and places the seal of finality on points which are still open to opinion. That murmurs are not always evidence of valvular disease and are seldom the measure of its extent are truths that are not sufficiently borne in mind in clinical diagnosis. And beyond question our stethoscopes often tell us too much or too little—too much if they constrain us to condemn a patient who has little, if anything, wrong with him; and too little if they suggest the bare fact alone of a certain valvular defect without an inkling of the nature or extent of the damage. The question that naturally occurs to us on discovering a murmur is: What does it signify? Is it organic? There are of course murmurs that bear the undeniable stamp of organic disease, as, for example, those belonging to aortic regurgitation and mitral stenosis; but the systolic murmurs of the mitral, tricuspid, and aortic areas have all a pseudo-form which resembles their prototype at times very closely. It is the characteristics of these functional murmurs that I wish to discuss. Belonging to this group there are at least three varieties which I may categorise as follows: (*a*) the cardio-hæmic or anæmic; (*b*) the neuro-typtic[2] or cardio-muscular; and (*c*) the cardio-respiratory. With the first all are familiar, and it requires but very brief reference. The murmur is, perhaps, best marked in typical examples of chlorosis, but it is by no means confined to the anæmic, and is often present in rosy and fairly-robust people. There are few delicate women, particularly if their chest walls are thin, who are without a trace of this murmur; and it is quite common to meet it in children who are below par from any cause, especially when they are examined in the recumbent posture. The hæmic murmur is usually a soft-blowing sound, and is, of course, systolic in time. It is best heard in the second interspace close to the left side of the sternum, but is often conducted into the lower reaches of the tricuspid area and downwards and outwards to the apex. In the mitral area it seldom outruns the limits of the heart walls, and is, consequently, so far as the apex is concerned, more limited than the somewhat analogous bruit of organic mitral regurgitation. The hæmic murmur is not always soft in character; it may be exceedingly rough, and is at times scratching. The roughness is often an added quality, and may be caused by unusual cardiac excitement. Particularly is the murmur liable to be rough when in addition to anæmia there is febrile excitement, as in rheumatic illness, a fact that adds to the importance of the diagnostic question. In common with other murmurs of this (functional) group, the hæmic is much influenced by the posture of the body. It is loudest when the patient is in the horizontal position, and at a minimum when the erect posture is assumed; but in some cases the difference under these conditions of posture is not great. It matters little, as a rule, whether the decubitus is dorsal or lateral. To the statement of Handford that the murmur is absent when the patient is lying on the face I am unable to subscribe. On the contrary, in several instances I have found that the bruit was loudest when the patient was placed in the prone position. It is commonly influenced by the respiratory acts, being generally loudest at the end of expiration and commencement of inspiration, and is often inaudible when the patient holds her breath at the end of forced inspiration. The physical causes of the cardio-hæmic murmur are no doubt still in dispute, but as I do not intend at present to discuss this point I shall content myself with the remark that I believe it to be the result of vibrations generated in the conus arteriosus of the right ventricle, at least in the cases in which its maximum occupies the second and third interspaces close to the sternum on the left side.[3] The question arises: For the murmur of what organic lesions may the hæmic bruit be mistaken? To which the reply is readily forthcoming. It may be supposed to indicate roughness or thickening at the aortic orifice, or perhaps mitral or tricuspid regurgitation. But, to be practical, it is most frequently mistaken for organic aortic and mitral systolic murmurs. I have been much impressed with the frequency with which organic aortic systolic bruits begin in the third left interspace close to the sternum, where they may be clearly audible for a considerable time before they spread into the right second

[2] Boswell's Tour to the Hebrides, p. 251.
[3] Charles Dickens: Martin Chuzzlewit, p. 11.
[1] A paper read before the Northumberland and Durham Medical Society.

[2] I have ventured to suggest this name from neuron and tupto as convenient and fairly expressive.
[3] It is only reasonable to suppose that under certain conditions mitral incompetency takes place in anæmia, when the murmur will be audible in the mitral area.

interspace, or even before they are distinct in the mid-sternal region. For example, one of the first indications of gouty heart mischief in the contracting form of kidney disease may be a rough, often scratching bruit, best heard in the interspace below the third rib, close to the sternum. This murmur is at first audible over a very limited area, though not infrequently it extends down to the interspace below (fourth). I have known this murmur precede the appearance of albumen in the urine by two months, and on several occasions it has given the clue to the diagnosis of chronic Bright's disease, a diagnosis that is still further suggested by the accompanying rapid and high tension pulse. I repeat that hæmic murmurs may be erroneously taken to indicate organic mitral regurgitation, and endocarditis and atheroma at the aortic orifice the results of rheumatic, gouty, and possibly malignant endocarditis. The diagnosis is often difficult, and in few cases can be decided upon physical signs alone, yet attention to the character and behaviour of the murmur under test of careful examination may be of signal service. The true organic mitral systolic bruit usually extends beyond the apex; the hæmic rarely does, unless the anæmia is very pronounced. The organic bruit is not much influenced by posture; the hæmic varies markedly; the organic is only slightly modified by the respiratory acts. It is usually loudest at the end of expiration, and diminishes as the expanding chest wall separates the stethoscope from the heart in deep inspirations; but in no case, as far as I am aware, does a long breath (even when held) entirely conceal an organic bruit, whereas it is quite common for hæmic murmurs to disappear under these circumstances.

The fact that the hæmic murmur may be rough in quality is not, I am inclined to think, generally known; indeed, it is so usually credited with the properties of softness, and of undergoing abatement under the stimulus of exertion, that upon these points it stands or falls. It is obvious that we must hesitate before we condemn a patient, should he be the possessor of a murmur, as the subject of organic heart mischief because of the quality of roughness, and because it does not decline on exertion, for in truth the hæmic bruit often becomes louder and harsher on exertion. This change in the character of the murmur may usually be ascribed to the supervention of the shock-bruit—the neuro-typtic murmur presently to be described—as the result of excited muscular action. In addition to a modified hæmic bruit there may then be audible a rough buzzing sound, which is best heard at the commencement of the systole, and is loudest in the third interspace. The union of these pseudo-murmurs is common, and may closely simulate organic disease. Even the act of sitting up will at times induce this combined bruit, for the heart of an anæmic patient is easily excited. It is often audible in the left interscapular region, but it generally lingers here only so long as there is excitement, and disappears as the heart returns to its normal rhythm. This alliance of murmurs may be very puzzling, and many a young heart is condemned—I had almost said "unheard"—when the disturbance is purely functional. The difficulty is particularly great when, for example, we have to do with a nervous young person whose history is not entirely free from a suspicion of rheumatism. The fact that perfect rest—say, for ten or fifteen minutes, when the heart is reduced some twenty or more beats—modifies the bruit considerably, robbing it of its roughness and leaving the apex free, is very suggestive of functional disturbance. Hearts belonging to this group (combined hæmic and neuro-typtic) as well as to the next (neuro-typtic) possess a highly nervous mechanism, and are subject to a form of palpitation or over-action of which the patient may be entirely ignorant. To this excited action the morbid sound may be ascribed. The neuro-typtic bruit is of the greatest importance and is very often responsible for grave mistakes in diagnosis. I have known the life of an able and busy surgeon embittered in the belief that he was suffering from advancing mitral disease—he heard the murmur himself with the double stethoscope, and his neighbour confirmed the diagnosis; and in another instance I was called to see a medical man who had been confined to bed for a month with a supposed attack of endocarditis.

But it is chiefly in connexion with life assurance that mistakes arise. It has frequently been my lot to encourage and reassure by a hopeful opinion nervous young men who were rejected for life assurance on the medical report upon the condition of their hearts. I need scarcely add parenthetically that in attempting to establish under these circumstances the patient's confidence in himself, I have always been careful to avoid doing so at the expense of the reputation of the medical referee by recognising the existence of the heart mischief while expressing the hope that it would prove to be functional and temporary. Other cases have come under my notice apart from the question of life assurance, and, with rare exceptions, the patients have sought advice on account of their hearts. I have said that the patient is usually ignorant of the cardiac excitement or palpitation that accompanies the functional murmur I am about to describe; but this is only partly correct, for, though unaware of the existence of chronic palpitation, he is conscious of a feeling of discomfort of which the palpitation is probably the cause. The following case is fairly typical.

CASE 1.—A man aged fifty, holding a position the duties of which were chiefly clerical, consulted me for pains &c. in the chest and legs. He was a very nervous man, and after beating about the bush for some time stated that he had been the subject of heart disease for upwards of eleven years. It was with some degree of reluctance that he allowed me to examine his chest, as he had never submitted to examination before, owing to a morbid dread of having his fears confirmed. I anticipated an easy task, fully expecting to be able to dismiss from his mind all solicitude for the future; for, as a rule, a nervous patient who diagnoses his own case has absolutely nothing the matter with his heart. I found, however, that I was mistaken; for on auscultation I discovered a loud systolic murmur audible at the apex, but loudest at the union of the fourth rib with the sternum. The pulse-rate was 100 to the minute, and the apex beat was a somewhat violent shock. It was difficult to localise, but it was not displaced. The murmur was of a buzzing or whizzing character, and was only conducted a short distance beyond the apex. It was very distinctly audible with the single stethoscope, though loudest when the double was employed. After resting on his back for upwards of twenty minutes, when the pulse-rate was reduced to 86, it was observed that the shocking action and the murmur had absolutely disappeared. They both returned, however, on allowing him to stand up and talk about his symptoms. I formed the opinion that the bruit was the result of sonorous vibrations conducted to the stethoscope on account of the peculiar ventricular shock, which produced a somewhat sibilant buzzing murmur, and that there was no mitral incompetency.

A number of cases have come under my notice which resemble the above more or less closely, but I shall only refer to a few as illustrating different phases, particularly with reference to the maximum point of the murmur.

CASE 2.—A man aged thirty-five, the subject of facial palsy, stated that his medical man had discovered his heart was "wrong" about four years previously. He was an extremely nervous man, and complained, among other symptoms, of almost constant palpitation. Under examination the heart was excited and jerky (120 in the minute), and there was an apparent increase in the area over which the impulse could be felt and seen. A well-marked systolic murmur was audible at the apex and was conducted about two inches to the left. Its maximum was just above the apex beat. The murmur was rough and was rendered less distinct by pressing the stethoscope firmly on the chest. It entirely disappeared even during excitement, when he held his breath after a deep inspiration, and when he lay on the right side; nor was it any longer audible when the heart settled down after a prolonged rest.

CASE 3.—A young man aged twenty-two was sent to me by his medical attendant for an affection of the heart. He complained of dyspepsia, shortness of breath on exertion, and a sensation amounting at times to pain in the præcordium. The heart was rapid (about 100) and the impulse was distinctly heaving. There was no displacement of the apex. A loud systolic murmur was audible along the left border of the sternum from the second to the fifth interspaces. It was rough and vibrating at its commencement, and soft and blowing towards its termination. It was loudest in the fourth interspace and was feebly audible at the apex, in which area it became less distinct on placing him on his left side, whilst as the result of rest it receded altogether from the apex and remained limited to the left border of the sternum. On the two or three occasions on which I examined this case the murmur, though reduced in intensity and extent of area over which it was audible by rest, did not quite disappear. It is only fair to say that in spite of the repose the heart remained rapid and excited; in other words, that it did not respond satisfactorily to rest.

It is common to find cases of this kind among children, but here the neuro-typtic bruit is usually associated with the true hæmic murmur—a fact that should be borne in mind when applying the repose test, for as the heart settles down the anæmic part of the bruit may become louder as the shock-produced sound diminishes. The fact, however, as I have already remarked, that the apex is left free from murmur as the result of rest is of great diagnostic value. In children it is, unfortunately, very difficult to manipulate the patient so as to abolish all agitation from the impulse, for the peculiar vibrating shock that would seem to underlie the murmur is apparently very easily aroused. I have often longed to examine the case during sleep, and I suspect some cases could only be cleared up in this way. It is also worthy of note that this murmur is not rendered more marked, but is rather lessened, by placing the patient on the left side, a manœuvre that nearly always intensifies organic bruits belonging to the mitral area. As a rule, in cases in which the neuro-typtic murmur is well marked, the morbid sound is audible whenever the patient is examined, under even slight degrees of excitement, in the erect posture, but in the following case the murmur disappeared entirely after a few weeks' rest and treatment. (Bromide of potassium and arsenic, with rest, were prescribed.)

CASE 4.—An athletic young man aged twenty complained of discomfort about his heart, with palpitation and shortness of breath on exertion. He was highly nervous. The apex beat was somewhat diffused, and was a little displaced to the left. It communicated a distinct shock to the hand, and the heart was rapid (90). A low-pitched, burring, systolic murmur was audible at the apex, but was not conducted towards the left, though it could be traced towards the right as far as the sternum in the fourth and fifth interspaces. After a few minutes' rest on the back it entirely vanished, but not until the cardiac excitement subsided. When examined a month later the murmur was no longer audible.

I pass now to a form of pseudo-murmurs that has long puzzled clinical observers. I refer to the so-called cardio-respiratory murmur. This adventitious sound is very common in nervous people during inspiration, but is frequently audible during the whole of the respiratory cycle. It is short and whiffing, and corresponds in point of time, as a rule, with the first sound. It can scarcely be said to favour any particular area of the præcordium, though it is perhaps most frequently audible in the neighbourhood of the apex, either to the right or to the left of the heart, or it may be below it, though it is often in the true mitral area itself. At times it can be heard to the left of the great vessels at the base, or, again, in the mid-sternal region between the fourth ribs, or in the aortic area, or beyond the sternum on the right side in the neighbourhood of the right nipple. These situations represent the positions in which the murmur is audible in different cases, for in the individual it seldom varies, but confines itself to a particular part of the heart area under certain circumstances. I have ventured to account for the cardio-muscular or neuro-typtic murmur by the shock or muscular vibration theory. To explain the cardio-respiratory bruit, on the other hand, it seems necessary to suppose a sudden reduction in the volume of the heart as the result of rapid ventricular contraction, the consequence of which is that the air is drawn in from the tubes, and thus the blowing or whiffing sound is produced. The following case I adduce as perhaps the most striking example of the cardio-respiratory murmur with which I have met.

CASE 5.—A man aged fifty-two was sent to me by a medical friend as a case of aortic disease. The patient stated that he had been in good health prior to an attack of pneumonia of the right lung some seven years before. This illness left him in a weak condition for a considerable period. Two years later he noticed beating in the epigastrium, and still later palpitation, with frequent intermissions. Then he became very nervous, and on one occasion he fell in the street during an attack of palpitation. After this his heart disturbance grew worse, and pains in the left side of the chest, shoulder, and down the left arm (pseudo-angina) were added to his other symptoms. At the time he came under observation the pain was a decided feature, and recurred two or three times a day, usually as the result of exertion. He was a tall, thin man, with a nervous, excitable temperament. The heart was rapid (generally about 90) and the impulse was diffused and heaving. The apex, as far as it was possible to localise it, was below the fifth rib, an inch and a half below and half an inch to inside of the left nipple. On auscultation when the patient was standing a loud systolic blowing or whiffing bruit was audible to the right of the sternum in the third, fourth, and fifth interspaces. The point of maximum intensity was in the fourth interspace, immediately below the right nipple; but the murmur was distinctly to be heard over an area which could be covered by a small hand, reaching from the right border of the sternum beyond and below the nipple. It was not audible at any other part of the heart region. It was loudest during the latter part of inspiration and grew weaker as the air left the chest, but was quite inaudible when the patient held his breath at the end of a long inspiration. The murmur at once diminished in intensity when the recumbent posture was assumed; thus, when lying on the back it was only audible towards the end of inspiration, whilst it disappeared entirely when on the right or left side. This murmur was quite distinct during the whole of the respiratory cycle when the patient was sitting, but it was noticed that after a prolonged rest in this position it became rapidly less and less distinct, until finally it vanished altogether. The brachial artery at the elbow was prominent and tortuous (atheromatous). There was marked pulsation of the abdominal aorta. To sum up the case briefly. A man over fifty was thrown out of a good situation on account of palpitation, with pain and discomfort in connexion with his heart, and on auscultation a loud systolic murmur was audible to the right of the sternum in the third, fourth, and fifth interspaces. The murmur simulated imperfectly the murmur of obstructive aortic disease. It was, however, audible outside the aortic area; it was not conducted over the manubrium sterni, and it became inaudible when the patient held his breath and when he lay on either side. It was, therefore, not an organic murmur. Its distribution, its soft, whiffing character, its crescendency during inspiration, and its total disappearance on altering the posture of the body, even under excitement, distinguished it from the murmurs to which reference has already been made.

In the following case the murmur possessed similar properties, but occupied a different position on the chest wall.

CASE 6.—A young man aged thirty consulted me for sexual and other nervous disturbances. There was a sharp, somewhat violent heart impulse (apex), which seemed a little below and to the left of the normal situation. A loud, soft, systolic murmur was audible in the sixth interspace below the extreme apex beat. It was loudest towards the end of inspiration and faint during expiration, whilst it disappeared when the patient held his breath at the end of a forced inspiration and when he lay down.

In another case, one of old-standing organic heart disease, in which pronounced double aortic and systolic mitral bruits were audible, and the heart was markedly hypertrophied, a similar soft, whiffing, systolic murmur could be heard quite independent of the organic murmurs, in the seventh interspace below and to the outside of the apex line. This murmur was only present when the patient lay on his left side at a certain very constant angle. On failing to attain this point, or on over-reaching it a little, the murmur could not be heard.

I now come to an interesting case, which I must describe rather more at length, as it possesses considerable interest from a life assurance point of view.

CASE 7.—A man aged thirty-two, following a sedentary occupation, came to me about his heart because he had been rejected on two medical examinations for life assurance. He had always been nervous, and of late his nervous symptoms had increased. For two and a half years he suffered occasionally from palpitation and violent action of the heart, but he had never known what it was to be breathless on exertion. He was able to take long walks and climb hills, and he frequently rode a bicycle. His father died suddenly some six years previously from thoracic aneurysm, and to the shock received at the time he ascribed a good deal of his nervousness, and especially his heart symptoms. He was examined in 1886 for life assurance (two years before his father's death), when his proposal was accepted. In January, 1893, he desired to add to the policy, but was rejected on account of his heart. In March, 1894, he made a further application, when another (independent) adverse report was made. He was a tall, thin, fair man, highly intelligent, but very nervous. He never suffered from rheumatism. The heart was rapid (110) and jerky in action. The apex beat was beneath the fifth rib, about half an inch to the inner side of the nipple line. Examined standing, a loud murmur was audible at and a little to the left of the apex. It was systoli

in time and seemed to be formed of two bruits combined. It commenced as a rough buzzing sound and terminated in a soft whiff or blow, and could be traced up to the fourth rib beside the sternum, where, however, it became very feeble. There was also a loud blowing systolic murmur in the second interspace to the left of the sternum. During a slowly drawn, exaggerated inspiration the buzzing portion of the apical murmur became feebler, whilst the whiffing or terminal part grew louder. On the other hand, towards the end of expiration the rough part of the murmur increased in intensity, whilst the soft blowing part was reduced to a minimum. After half an hour's rest, when the heart was reduced to 85, the murmur vanished altogether from the neighbourhood of the apex except towards the end of a long inspiration, when a short systolic whiff could alone be detected. The murmur in the pulmonary area continued after all cardiac excitement had abated, and was obviously hæmic.

In this case the three functional murmurs united to produce stethoscopic signs that could with difficulty be distinguished from organic heart disease. The hæmic was represented by the bruit in the left second interspace, the neuro-typtic by the rough buzzing sound in the apical region, and the cardio-respiratory by the soft whiff which brought the systolic murmur to a termination. But the application of what I may call the rest, the positional, and the respiratory tests justified the diagnosis of functional disturbance. Not infrequently the murmur is at a maximum when the breath is held at the end of a deep inspiration, and this should be borne in mind.

CASE 8.—A woman aged twenty-seven, stout and full-blooded, consulted me for headaches and pain in the chest and left side. In searching for a cause of the latter pain I came upon a loud systolic murmur about an inch to the left of the heart apex, which was in its normal position. The murmur was short and blowing; it was best heard in the ninth and tenth interspaces in the posterior axillary line, and was loudest during inspiration and at a minimum at the end of expiration. On directing her to draw a long breath and hold it the murmur became markedly intensified. There was no hæmic bruit. The cardio-respiratory bruit is not always systolic in time, but may follow the first sound like an echo.

CASE 9.—A man aged sixty-nine, highly nervous but well-preserved, complained of palpitation, some pain in the left side, and increased frequency of micturition. He was nervous about himself, and suspected diabetes. He informed me that for thirty years he had been suffering from what medical men called mitral disease, but he had become used to the idea, and was not disposed to take a serious view of his heart condition. The heart was rapid (115 in the minute), with a jerking action. The apex was a little below and to the left of the normal position. Examined standing, a loud murmur was audible at the apex and to the right and left of this point; it was short and whiffing, and synchronous with the first sound, and was loudest during inspiration, but became much less distinct when the breath was held. When he lay down the bruit to the right of the apex in the fifth interspace was no longer synchronous with the first sound, but followed it, just coming in before the second sound, which was normal. At the apex and to the left this separation from the first sound was not recognised. After resting on the back for a while the heart came down to 84, and the murmur disappeared.

In some of the cases I have related there was more than a suspicion of cardiac hypertrophy, as evidenced by displaced apex beat. Indeed, it might almost be said to be the rule to meet with the impulse slightly lower and further out than the normal situation in cases in which the neuro-typtic murmur is well marked. In other words, it is not uncommon to meet with hypertrophy, real or apparent. Whilst admitting the possibility of some slight degree of hypertrophy, arising out of chronic palpitation or over-action, I am decidedly of the opinion that the increased area of impulse in these cases cannot be regarded as a sufficient indication of hypertrophy or dilatation; for even in the case of habitually quiet, normal hearts, a little excitement or exertion will at once cause an apparent outward displacement of the apex beat, which in some instances will continue in the new position for a while after the pulse has fallen to its normal rate. This point requires further investigation, for it is obviously of importance to determine the size of the heart, a task of considerable difficulty in cases of nervous palpitation. In very few instances was I able to satisfy myself that the area of percussion dulness was at all increased, and in none did I meet with increase in the area of deep dulness. It will possibly be thought that the explanation given above of the so-called shock and cardio-respiratory murmurs are inadequate, and so they may be; but I am not so much concerned just now with the theory of their production as I am to bring under the notice of the profession the fact that functional heart murmurs very often simulate organic disease. The accompanying table shows the chief clinical features of the various murmurs:—

Table showing the Characteristics of Different Murmurs.

—	Organic mitral.	Hæmic.	Neuro-typtic.	Cardio-respiratory.
Physical character.	Varied, soft, or rough.	Usually soft; may be rough.	Rough, scratching, whizzing.	Soft, whiffing.
Position of maximum.	Apex and conducted towards left.	Pulmonary area rarely beyond apex.	Little above and to right of apex. Loudest in fourth interspace close to sternum.	Varied in position; often not referable to any particular area.
Posture test.	But slightly influenced by change of position. Loudest when lying on left side.	Loudest when lying on the back. Faintest when standing.	Loudest when standing; often disappears when lying on either side.	Do. Do.
Respiratory test.	Loudest at end of expiration, but not much influenced by respiration.	Loudest at end of expiration, often inaudible at end of deep inspiration.	Do. do.	Loudest towards end of inspiration, faintest at end of expiration. On holding a long breath will often disappear, but may be intensified.
Rest test.	Not much affected by exertion. Well-marked after prolonged rest.	Loudest after rest.	Loudest after exertion or any excitement. Inaudible after prolonged rest	Loudest during excitement, may be inaudible after rest.

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ON THE

PRESENCE OF TYPHOID BACILLI IN THE URINE OF PATIENTS SUFFERING FROM TYPHOID FEVER.

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THE fact that typhoid bacilli are to be found in the urine of patients suffering from typhoid fever is not a new fact. It is, however, a very important fact, and for these reasons. First, if it is true that the typhoid bacilli are present in the urine of patients suffering from typhoid fever, and if, as we shall see, typhoid bacilli are generally absent from the fæces, it will be evident that it is the urine, and not the fæces, of patients suffering from typhoid fever which is responsible for the spread of typhoid infection. Secondly, if typhoid bacilli are constantly present in the urine of typhoid patients, it may be possible to diagnose the presence or absence of typhoid fever by undertaking a bacteriological examination of the urine. Thirdly, if it is true that typhoid bacilli are constantly present in the urine in cases of typhoid fever while they are generally absent from the fæces, it will be evident that the conception of typhoid fever upon which the ordinary clinician proceeds is an entirely erroneous one. It will be convenient to proceed immediately with the discussion of this question. The theory of typhoid fever, which is currently held, and currently acted upon, is the theory that typhoid

fever is an "intoxication process," much in the same way as cholera is an "intoxication process." In other words, it is assumed that the typhoid bacillus vegetates in the intestine, that it effects a lodgment in the intestinal walls, and that the poisons which are elaborated by the bacilli are absorbed into the system from the intestine. The systemic disturbance which characterises typhoid fever is attributed to this absorption. This theory of typhoid fever is brought into harmony with notorious bacteriological facts by the assumption that there is a certain leakage of typhoid bacilli from the intestine into the system. This leakage theory is supposed to dispose of the fact that typhoid bacilli are invariably found in the spleen and mesenteric glands of patients suffering from typhoid fever. Now, this "intoxication" theory of typhoid fever was originally based upon the fact that a bacillus which is morphologically indistinguishable from the typhoid bacillus is found in large quantities in the stools in every case of typhoid fever. Subsequent investigations, however, showed that this bacillus which predominates in the intestinal floor in cases of typhoid fever can be distinguished from the true typhoid fever bacillus by a series of chemical differences. The bacillus which is found in such large quantities in the stools of patients suffering from typhoid fever is therefore not the true typhoid fever bacillus. It is the bacillus which is known by the name of "bacillus coli communis." Recent research has, therefore, been directed to the question as to whether, in addition to the bacillus coli communis, the true typhoid fever bacillus is not also to be found in the stools of patients suffering from typhoid fever. The following are the results of Wathelet's careful examination of this question. The true typhoid fever bacillus was detected in the stools of only four of the twelve cases of typhoid fever which were studied by this observer. In the case of these four patients the typhoid fever bacillus was detected only four times in a total of twenty-four examinations; and even on these four occasions the true typhoid fever bacillus was outnumbered by the bacillus coli communis in the proportion of about three to one. In the case of the other eight cases of typhoid fever the bacillus appeared to be absent from the stools throughout the whole course of the disease. Wathelet has further shown that if the bacillus typhosus and the bacillus coli communis are implanted into one and the same tube of nutrient broth, the bacillus coli communis will outgrow and kill off the typhoid fever bacillus even when at the outset an enormous numerical preponderance is given to the typhoid bacillus over the bacillus coli communis. Again, Wathelet has shown that whereas the bacillus coli communis will flourish in a nutrient medium containing the toxines elaborated by the typhoid fever bacillus, the typhoid fever bacillus will not grow in a nutrient medium containing the toxines elaborated by the bacillus coli communis. If this holds true in every case—and it has seemed to hold true in the few test-experiments we have performed—we are evidently in a position to infer on *a priori* grounds that typhoid fever bacilli will be absent from the intestine whenever, as in the case of typhoid fever, we have to deal with a multiplication of the bacillus coli communis in the intestine. Both *a priori* reasons and actual observations, therefore, point to the absence of typhoid fever bacilli from the intestinal tract, and therefore the symptoms of typhoid fever cannot be interpreted as a result of the absorption of typhoid toxines from the intestine. We are therefore compelled to seek for a new theory of typhoid fever, and if typhoid fever is not the result of an intestinal intoxication process, we must evidently seek to explain it as a result of a blood infection. This is, if we understand it aright, the theory of typhoid fever which has recently been put forward by Sanarelli under the auspices of Metschnikoff. We have to see whether typhoid fever can be explained upon the basis of this theory. And evidently the first thing to be explained in the case of typhoid fever is the turgidity of the spleen and the presence of typhoid bacilli in the splenic tissue. Now, this turgidity of the spleen and this presence of micro-organisms in the splenic tissue is an invariable accompaniment of every septicæmic process. We find it in the case of such blood infections as anthrax in cattle and spirillum fever and malaria in man. And we have the explanation of this phenomenon in the experiments of Werigo, which show that the introduction of any foreign particulate matter into the blood invariably results in a deposition of that particulate matter in the spleen (and other internal organs), and in an aggregation of polynuclear white blood-corpuscles round the foreign particulate matter, and, finally, in a process of phagocytosis. Everybody who has a rabbit, and a little carmine, or any bacterial culture at his disposal can readily verify these facts for himself. The enlarged spleen and the presence of bacteria there are thus quite in harmony with the theory of a blood infection in typhoid fever. The fact that the white blood-corpuscles are diminished[1] in the circulating blood in typhoid fever is also in harmony with this explanation. We have further in connexion with typhoid fever to account for the eruption of pink spots on the skin. These were inexplicable on the intoxication theory of typhoid fever. They are, however, of the easiest explanation if we make the assumption that typhoid fever is characterised by a blood infection, for here, as in other cases, we may instance the skin eruption in the case of human glanders, the spots evidently correspond to lodgments of the bacteria in the capillaries of the skin. This interpretation of the skin eruption in typhoid fever has been borne out in the case of typhoid fever, just as it has in the case of glanders, by the fact that the specific bacteria have been cultivated from the spots. We have been able to confirm this observation in one of the cases of typhoid fever reported below.

The intestinal symptoms of typhoid fever are of somewhat uncertain explanation. Possibly they are to be explained, as Sanarelli explains them, as a specific effect of the typhoid fever toxine on the adenoid tissue of the intestine, and of the subsequent invasion of that tissue by the bacillus coli communis. We have, however, not been able to verify Sanarelli's observation that the injection of typhoid fever toxine will produce a swelling of the Peyer's patches in the guinea-pig. On the other hand, the inflammation of the Peyer's patches might evidently be due to a lodgment of typhoid bacilli in the adenoid tissue comparable to that which occurs in the capillaries of the skin. We thus see that the theory of a blood infection will account for the intestinal phenomena just as well as the theory which locates the source of the disease in the intestine. The occasional presence of typhoid fever bacilli in the intestine is easily accounted for by assuming that a certain number of the typhoid fever bacilli escape through the intestinal wall into the intestinal contents. The relapses which occur in typhoid fever may be compared with the relapses which occur in spirillum fever, which is a typically septicæmic process. In both cases the cause of the relapses would be some incompleteness in the original phagocytic reaction. Such incomplete phagocytosis would be followed up by a cultivation of the typhoid fever bacilli in the spleen, and ultimately by a dissemination of these bacteria through the body by means of the blood current. This would be evidenced by a fresh outcrop of spots upon the skin.

In addition to the points which have just been touched upon, we may refer to two others, which, though they have been comparatively neglected, throw an important light upon the pathological processes which are associated with typhoid fever. The phenomena in point are the presence of so-called "miliary lymphomata" in the kidney and the presence of the typhoid bacilli in the urine. We have had no recent opportunity of studying the miliary lymphomata which are described as occurring in typhoid fever, but they are probably quite comparable to the miliary lymphomata which are described as occurring in the spleen in cases of spirillum fever, and to the miliary lymphomata which are produced by the injection of fairly resistant bacteria, such as tubercle bacteria, into the blood. Such lymphomata correspond to aggregations of white blood corpuscles around bacteria which have lodged in the capillaries. They are a repetition in small of the aggregations of phagocytic white blood corpuscles which are seen on a far larger scale in the spleen. Lastly, with regard to the presence of typhoid fever bacilli in the urine. Even if typhoid bacilli were found in the urine only in occasional cases their presence there would be a strong argument in favour of the theory of a blood-infection and against the intestinal intoxication theory. But the argument in favour of the septicæmic theory of typhoid fever becomes irresistible if it

[1] It may be pointed out incidentally here that the paucity of white blood-corpuscles in the blood probably stands in some connexion with the fact that epistaxis is of frequent occurrence in typhoid fever. This epistaxis—if we may judge from a great many observations which one of us has made of the condition of blood-coagulability—is almost certainly an indication of a diminished blood-coagulability such as can be obtained by the injection of particulate matter into the blood. In an experiment made by one of us, the coagulation time of a dog's blood in the standard capillary tube was reduced from three minutes to fifteen minutes by an intra-vascular injection of carmine particles.

can be shown that the typhoid fever bacilli are almost always found in the urine in cases of typhoid fever. With a view to ascertaining this point we have examined the urine in the the following typical cases of typhoid fever.

CASE 1.—A man aged thirty-five had a very severe attack of typhoid fever with a relapse, which was accompanied by a typical rash. A specimen of urine was taken on the seventh day of the relapse while the temperature was at its highest, reaching 103·6° F. The patient made a good and steady recovery. The disease was contracted at the Cape, and the primary attack lasted quite five weeks.

Bacteriological examination.—The urine was passed directly into a sterilised bottle. Plate cultivations were made from it a few hours afterwards and a considerable number of typical colonies appeared on the plates. These were planted out into gelatine, and typical stab-cultures were obtained. Tubes of milk, ordinary broth, and 2 per cent. cane sugar and chalk broth, were also inoculated. There was no curdling, indol production, or gas evolution.

CASE 2.—A girl (aged fifteen) had a mild attack of typhoid fever. The specimen of urine was taken on the fourth day after admission to the Royal South Hants Infirmary during the supposed third week of the disease. No rash was seen whilst she was in the hospital, and the temperature had been falling since admission. She made a speedy recovery.

Bacteriological examination.—The urine was drawn off by an aseptic catheter into a sterilised bottle. Plate cultivations were made a few hours afterwards, but no typical colonies could be detected on the gelatine plates.

CASE 3.—A boy aged fifteen had a severe attack of typhoid fever, and was admitted to hospital on the eighth day. On admission he was deaf and drowsy. The stools were typical; there was a trace of albumen in the urine and there were a few doubtful spots. There was considerable bronchitis. The temperature ranged between 102·4° and 104·8° F. from the eighth to the eleventh day, beginning to decline on the twelfth day. There was an eruption of typical spots on the tenth day, and on this day a specimen of urine was taken. The patient steadily improved on the decline of the temperature, and another specimen of urine was taken on the fifteenth day. The temperature had been 99·4° that morning and 102·8° the previous evening. He is now almost convalescent.

Bacteriological examination.—First sample of urine: Plate cultivations were made, as in the last two cases, within a few hours after the urine had been drawn off by aseptic catheter. Plates inoculated with one loopful of urine remained sterile. The remainder of the urine was incubated for forty-eight hours at 37° C., and plate cultivations were then made with 0·25 c.c. A considerable number of typical colonies developed upon the plates. These were further tested as to their chemical properties as in Case 1, and reacted in every respect as typhoid. No typhoid colonies were recognised on the plates which were made from the second sample of urine after it had been incubated for forty-eight hours.

CASE 4.—This was a boy aged nine, brother of the last patient. The attack was one of medium severity. He was admitted on the tenth day of the disease. He was deaf and drowsy. He had a profuse rash and some bronchitis. His spleen could be felt. There was no albumen in the urine, and he was constipated. The first specimen of urine was taken on the twelfth day, when the temperature had commenced to decline, but ranged from 102° to 103·6° F. On the seventeenth day a second specimen was taken. The temperature then ranged from 98·4° to 99·8°. On the eighteenth day there were still a few spots to be seen. Cultivations were made from three of these. The temperature had not exceeded 99° for five days, when on the twenty-fourth day it rose to 100·2° at 8 P.M., and a relapse began. This relapse was of a mild type constitutionally, but the temperature reached 104·8° on the third day (twenty-sixth day of the disease), and there were a few spots. On the twenty-seventh day there was a profuse crop. On the twenty-eighth day (fifth day of the relapse) a few spots were still to be seen. Cultivations were made from two of these, and a third specimen of urine was taken. The temperature on this day ranged from 99·6° to 103·2°.

Bacteriological examination.—The first sample of urine was passed into a non-sterilised chamber-pot. No colonies which resembled typhoid were detected on plate cultivations made a few hours after the urine had been passed. Numerous typical colonies made their appearance on plates made with urine which had been incubated for forty-eight hours. The bacteria which were planted out from three of these colonies curdled milk, and gave the indol reaction with ordinary broth and the bubbling reaction with 2 per cent. cane sugar and chalk broth. The bacteria which were planted out from nine other colonies corresponded in all respects to true typhoid bacteria. Plates were made from the second and third samples of urine after they had been incubated in each case for forty-eight hours. The results in the second sample were negative. Typical typhoid baccilli were cultivated from the third sample of urine.

Typhoid spots.—On the eighteenth day after sterilisation of the skin three typhoid spots were punctured with a sterile hypodermic needle mounted in a piece of sterile glass tube, and plate cultivations were made. A typical colony made its appearance on one of the plates. The bacteria corresponded in all their chemical and morphological characters to true typhoid bacilli. On the twenty-eighth day cultivations were made by the same method. Several typical colonies developed on one of the plates, and cultures made from these conformed in all respects to true typhoid.

CASE 5.—This was a girl aged fourteen, sister of the last two. It was a very mild case. She was admitted to hospital on what was probably about the ninth day, with constipation and a few typical spots. Her temperature was 103° F. that evening, but fell steadily. The first specimen of urine was taken by catheter two days after admission, when the temperature varied between 98·8° and 100·6°. The temperature remained below 98·4° during the whole twenty-four hours on the thirteenth day, and has continued so since. A second specimen of urine was taken on the sixteenth day, when there had been three clear days of apyrexia. She is now convalescent.

Bacteriological examination.—A single typical colony made its appearance on plates made from the first sample of urine a few hours after it was passed. The bacteria from this colony corresponded in all their chemical and morphological characters with true typhoid fever bacilli. No typhoid fever colonies appeared on the plates made from the urine after it had been incubated for forty-eight hours. This urine had turned alkaline. A second sample of urine gave negative results.

CASE 6.—This was a girl aged nine years, a lodger in the same house as the last three cases. She had a very severe attack, and was a delicate-looking child. She was admitted on about the same date of the disease as the last case. On admission she had a temperature of 103·2° F., and rapidly became unconscious and passed her evacuations into the bed. She had a rash and a great deal of bronchitis. For a week her temperature ranged between 103° and 104·8°, and for another week between 101° and 104°, and then began definitely to decline. The first specimen of urine was taken on the second day after her admission, and the second on the seventh day after admission—i.e., on the eleventh (?) and sixteenth (?) days respectively. About the twenty-fifth day a suspicious-looking gangrenous patch appeared inside the left cheek, which spread, and was scraped out on the twenty-seventh day under chloroform, and freely rubbed with a strong solution of chloride of zinc. It now appears to be doing well. On the twenty-eighth day a purulent discharge began from the left ear, which continues. At the present time the child is distinctly better and is quite conscious. Her temperature fell to 98·8°, and only rose to 101·4° on the twenty-eighth day.

Bacteriological examination.—First sample of urine: No typhoid fever colonies made their appearance on the plate made a few hours after the urine was passed; numerous typical colonies appeared on plates made after the urine had incubated forty-eight hours. Bacteria from these colonies corresponded in all respects to true typhoid fever bacteria. Second sample of urine: Numerous typical colonies made their appearance on plates made after the urine had been incubated for forty-eight hours. Bacteria from these colonies were true typhoid bacteria.

CASE 7.—This case was under the care of Mr. Chance, to whom we are indebted for the notes, of which the following is an abstract. The patient was a woman aged eighteen, who began to feel ill a few days before leaving New York on June 13th, 1895. From the 16th to the 19th, when she landed at Southampton, her temperature varied from 103° to 105° F. After this the temperature fell somewhat for a while, but made great daily excursions. There was a fair amount of diarrhœa, a well-marked rash, and unconsciousness with delirium. The urine was taken on the eleventh day, when the temperature varied from 103·4° to 99·2° F. Death occurred without any return of consciousness on the thirteenth day.

Bacteriological examination.—Very numerous typical

colonies appeared on plates made after the urine had been incubated for forty-eight hours. Bacteria from these colonies correspond in all respects to true typhoid fever bacteria.

We thus see that in six out of seven cases examined the typhoid fever bacilli were easily detected in the urine. In view of this fact it seems to us that the bacteriological examination of the urine ought not to be neglected in any doubtful case in which typhoid fever is suspected. It is hardly necessary to do more than merely advert to the hygienic aspect of the matter. It was only a natural outcome of the intestinal intoxication theory of typhoid fever that the greatest precaution should have been enjoined with regard to the stools of the patient suffering from typhoid fever, while the disinfection of his urine was neglected. If, however, the recent observations on the almost constant absence of typhoid fever bacilli from the stools are to be trusted, the disinfection of the fæces will have to rank not as an article of faith, but as a mere "counsel of perfection." On the other hand, the most careful attention will have to be given to the disinfection of the urine. In some cases the urine even before incubation is absolutely turbid with typhoid bacilli. In conclusion, it is our pleasant task to thank Dr. W. P. Purvis, of the Southampton Infirmary, for the notes of the clinical cases which he has furnished and for much useful assistance in the conduct of the bacteriological examinations.

Netley, Southampton.

NOTES ON THE PLAGUE IN CHINA.

BY JAMES A. LOWSON, M.B., C.M.EDIN.

So far I have met with only five cases of plague in Hong-Kong, of which four were imported from Canton. The remaining patient must have contracted the disease in Hong-Kong, but the manner of infection has not been traced. At Macao the fatal cases have for some time averaged ten daily, but according to information just received (June 12th) there are now only three or four deaths daily. Canton city was absolutely free from the disease when I was there a week ago, but the surrounding villages are suffering severely. Hoihow is likewise practically free, only one or two straggling cases being known. The news from Swatow is also favourable, my medical correspondent reporting only from three to five cases per week, but intelligence of another outbreak not far from Swatow has just arrived. This is only to be expected. Plague travels very slowly, and we may anticipate that it will pursue an erratic course through many Chinese villages for the next few years. In the villages no methods of checking its advance are ever thought of, and consequently a sort of quarantine or prevention of immigration may have to be kept up perhaps for years unless wiser counsels prevail. Amoy is declared free from plague. Immigration from Macao, Hoihow, and Swatow is still prohibited—a somewhat unnecessary precaution, especially with respect to the two last-named places.

I have been able to carry on some experimental researches in conjunction with the colonial veterinary surgeon. Pigs are but slightly susceptible to the disease. Observations made in six cases show that their temperature is not raised by feeding them on plague-infected spleens. Inoculation in the flank is followed by a rise in temperature of from 2° to 4° F. in about twenty-four hours, the site of inoculation becoming œdematous. On careful bacteriological examination of the serum from the œdematous tissue no plague bacilli were found either by the microscope or by cultivation. In our experiments on cattle two animals have been inoculated about six times each, and they show the same symptoms as the pigs. The rise of temperature, however, is somewhat greater; 100° to 101° is the normal, and a temperature of 105° is frequent. They do not lose their appetites at all. An œdematous swelling appears round the place of inoculation; but, just as with the pigs, no bacilli are found in it. The inoculations were made from the bubo direct, from culture, and from rabbits which had previously been inoculated with the disease. I only want a few cases to try now in the hope of producing immunity in the cattle, but to all appearance I shall not be able to get them here. Yessin says that in Yunnan he has proved the presence of the same bacillus in cattle plague and that it is most deadly. I think he must mean the rinderpast, which is so common in Yunnan.

Hong-Kong, June 12th.

A CASE OF BELLADONNA POISONING.

BY S. R. SCHOFIELD, M.R.C.S. ENG., L.R.C.P. LOND.,

AND

C. S. PANTIN, M.B., B.S. LOND.

THE patient, a boy aged six, was brought to the Victoria Hospital for Children, Chelsea, at 1.15 P.M. on Aug. 2nd, 1894. At noon the boy had left his home, and at 1.10 P.M. he had been brought back by some children, who said that he had fallen on his head. The boy was found to be delirious and very restless. The movements were jerky and unexpected. He would sit up successfully for some time and then overbalance backwards or forwards. He could stand and walk a little, but in a very incoördinate manner. The pupils were equal and dilated; they did not react to light. The skin was dry and apparently itching, for he constantly scratched himself. He resented being interfered with and did not recognise his mother. No external injuries could be found. The history of a fall was discredited and belladonna poisoning suspected. The boy was admitted to the hospital under the care of Dr. W. Wallis Ord. From the stomach fragments of about half a dozen belladonna berries were removed, together with numerous seeds. No food was found in the stomach. Despite the struggles of the patient the washing out was continued until water returned without any seeds. For the next few hours he lay quietly in bed, apparently exhausted, but at 5 P.M. he sat up and swallowed some peptone with difficulty. He refused water. In the evening he became very restless and several times nearly fell out of his cot. He stared about him with eyes apparently focussed for distant objects, for he did not notice people who were close in front of him. The pupils remained dilated. On careful watching it was evident that in his delirium he was going through the events of the morning. After looking suspiciously round in all directions he would stretch out his hand to the screen at the head of the bed and appear to be plucking something; he would examine the supposed contents of his hand and then put it to his mouth and go through the acts of mastication and deglutition. Occasionally he put his hand to his nose, as if smelling, and once he seemed to be spitting something out of his mouth. Again he would seem to be picking up something, which he would throw into the air and catch or throw away to a distance. He called his late companions by name and made remarks bearing on the subject of the berries, such as "Have you got it?" "You said they were not cherries"; "Are there any stones in them?" "Give me one to taste"; "Eat that and I'll tell your mother." He gave the impression of being quite happy. The skin was dry, and his speech suggested dryness of the mouth. He frequently rolled his tongue about. The face was flushed, but there was no rash. The pulse was 120, regular, and of low tension. He passed urine unconsciously several times, but the bladder remained distended until relieved after a fomentation. A morphia injection of one-tenth of a grain sent him to sleep for several hours. Next morning consciousness began to return. He could answer questions in a muddled way. The pupils remained large, but reacted slightly to light. The motions contained a few seeds, but no berries. The following day the boy was quite well. The berries and seeds were those of atropa belladonna (deadly nightshade). The patient led the way to the spot where he had picked and eaten them.

The case seems worthy of record, firstly, on account of the difficulty of diagnosis in the face of a misleading history, and, secondly, on account of the more than usually realistic manner in which the taking of the poison was rehearsed in the resulting delirium.

AN UNPUBLISHED PHYSICAL SIGN.

BY WALTER BROADBENT, M.B. CANTAB.,
HOUSE PHYSICIAN AT THE BROMPTON HOSPITAL FOR CONSUMPTION.

BY the kind permission of the physicians at the Brompton Hospital I am permitted to publish the notes of four cases now under their care in the wards, in each of which there is visible retraction, synchronous with the cardiac systole, of the left back in the region of the eleventh and twelfth ribs, and in three of which there is also systolic retraction of less degree in the same region of the right back. In all the cases there is a definite history of pericarditis, and in three of them there are other conditions strongly suggesting an adherent pericardium. The only means of causing this retraction on both sides seems to be the diaphragm, which, if pulled upon, would have more effect on the floating eleventh and twelfth ribs than on the other more fixed ones. In cases of large heart with adherent pericardium there is a considerable area of the ventricles closely adherent to the central tendon of the diaphragm, and the powerful contraction of the hypertrophied heart must give a decided tug to this structure. That it should affect the ribs more often on the left side would be expected from the adhesion being mainly to the left of the middle line; the liver also, which is often large in these cases, may restrain the movement on the right.

CASE 1.—A youth aged eighteen years had rheumatic fever in 1890 and pericarditis in 1893. He is pale and thin, with carotid pulsation very marked in the neck. He also shows capillary pulsation. His pulse (80) is regular in force and frequency. The artery is large, and visible for two inches up the arm. The wave is sudden, large, bisferiens, and almost completely collapsing. The chest bulges on the left side from the second rib downwards. The apex beat is a very powerful thrust in the sixth space four inches and a half below and one inch and a half outside the nipple. There is systolic retraction of the third and fourth left spaces, and also of the epigastric region, and pulsation in the fifth and sixth left spaces. The apex beat does not change its position on his taking a deep breath, and moves barely half an inch when he lies on one side or the other. In the left back, between the posterior axillary and scapula angle lines, retraction, synchronous with the cardiac systole, is seen and felt in the tenth and eleventh spaces, and over the twelfth rib and just below it. In the right back systolic retraction of almost equal intensity is present over precisely the same area. The cardiac dulness is bounded above by a line from the mid-sternum opposite the fourth cartilage to the nipple; and in the sixth space extends from the right of the sternum to two inches outside the vertical nipple line. Deep inspiration only slightly decreases this area. The heart sounds are as follows: at the apex there is a blowing systolic murmur almost entirely replacing the first sound, and a long low murmur filling the diastole. Both murmurs are heard round to the back. In the tricuspid area there are a good first sound, a blowing systolic murmur, a second sound, and a blowing diastolic murmur. At the pulmonary cartilage a rough systolic murmur, slightly accentuated second sound, and a blowing diastolic murmur are audible. At the aortic cartilage there are a rough vibratory systolic murmur, a second sound, and a loud blowing diastolic murmur. In the neck there is heard a very loud vibratory systolic murmur, but no second sound. The liver is only just felt below the margin of the ribs. Respiration is almost entirely costal, and the epigastric region recedes on inspiration. There is slight dulness at the left base, and some rhonchi and crepitations are heard over the lower part of both lungs, especially the left.

CASE 2.—A girl aged eighteen years had pericarditis with rheumatic fever in 1893. She is a thin, anæmic girl with slightly flushed cheeks. Her pulse (116) is regular in force and frequency. The artery is of fair size, just felt between the beats; the wave is large and short, and very easily compressible. There is very little præcordial bulging. The apex beat is in the fifth space, an inch and a half below and half an inch external to the nipple; the sixth rib is also lifted. A presystolic thrill is felt, followed by a short powerful impulse. Slight pulsation is also visible in the second, third, and fourth spaces on the left side, and to the right of the sternum in the fourth and fifth spaces. In the epigastrium there is very slight systolic retraction. The apex beat does not alter its position on her taking a deep breath, and only moves very slightly on her turning on to either side. In the left back there is seen retraction, during the cardiac systole, of the tenth space and eleventh and twelfth ribs, with the region just below. In the right back there is a similar retraction of the twelfth rib with the space above and below. Cardiac dulness begins in the third space from the mid-sternum to the left vertical nipple line, and in the fourth space extends from half an inch to the right of the sternum to half an inch outside the left nipple line; in the fifth space it extends from three-quarters of an inch to the right of the sternum to one inch outside the nipple line. Deep inspiration does not decrease the cardiac dulness. The sounds heard are at the the apex, a short soft rumbling presystolic murmur leading up to a very loud banging first sound, and a whistling systolic murmur; no second sound is audible. The first sound and the systolic murmur are conducted round to the back. In the tricuspid area there are heard a first sound, a blowing and slightly whistling systolic murmur, and a second sound. At the pulmonary cartilage there are a first sound, a soft systolic murmur, and an accentuated and reduplicated second sound. At the aortic cartilage a loud first sound and a second sound are audible. The liver is felt two fingers breadth below the costal margin. The abdomen moves very poorly in respiration, even for a girl, and the epigastrium sinks in on inspiration. In the lungs there is tuberculous infiltration of the right upper lobe, and of the apex of the lower lobe, with some excavation. There is also slight want of resonance at the left base, with diminished breath sounds.

CASE 3.—This was a young man aged twenty-one years. In 1888 and 1890 he had rheumatic fever, and in 1892 pericarditis and left-sided pleurisy. He is fairly healthy-looking, being only short of breath on exertion. His pulse (108) is regular in force and frequency. The artery is rather large and just visible at the wrist, being nearly empty between the beats; the wave is short and large and is easily compressible. There is some præcordial prominence below the third rib on the left side. The apex beat is in the sixth space, four inches below and half an inch external to the nipple. There is a powerful thrust in the fifth and sixth spaces, with a shock at the end of systole; pulsation is also seen in the third and fourth spaces. There is slight systolic retraction of the epigastric region, but pulsation is felt on deep palpation. The apex beat appears in the seventh space when he takes a deep breath, and moves half an inch internally on his lying on the right side, and one inch and a half externally on lying on the left side. In the left back systolic retraction is seen from the tenth space to just below the twelfth rib, between the posterior axillary and scapula angle lines. On the right side the tip of the twelfth rib is seen to be drawn in during the cardiac systole. The cardiac dulness is in the third space two inches to the left of the sternum, in the fourth space from the mid-sternum to the left nipple, and in the fifth and sixth spaces from the right margin of the sternum to one inch and a half outside the vertical nipple line. This area is considerably decreased on deep inspiration. At the apex there are heard a short, loud, banging first sound and a harsh, systolic murmur, but no second sound. The first sound and murmur are conducted through the axilla to the back. Over the tricuspid area a loud first sound, a blowing systolic murmur, and a sharp second sound are audible. At the pulmonary cartilage there are heard a first sound, a systolic murmur, and slightly accentuated and reduplicated second sound. At the aortic cartilage a short first sound, a soft systolic murmur, and a fair second sound are audible. The liver is not enlarged. Respiratory movement is absent in the epigastric region and very poor in the lower abdomen. In the lungs there is diminished resonance at both bases, and the breath sounds are weak at the right base, but good at the left base.

CASE 4.—A girl aged seventeen years had rheumatic fever and pericarditis in 1890, and rheumatic fever again in 1892. She is delicate looking, small for her age; she becomes short of breath on the slightest exertion. Her pulse (92) is regular in force and frequency; the artery is small, and not felt between the beats; the wave is short and small and is very easily compressible. There is very marked bulging of the left chest below the second rib, and of the lower sternum; the apex beat is in the sixth space two inches below and one inch outside the nipple; it is a powerful thrust. Its position does not alter on deep inspiration or on her turning on to either side. There is systolic retraction in the third and fourth left spaces, also in the epigastric region, and in the fifth and sixth right spaces for one and a half inches from the

sternum. There is well marked pulsation in the fifth and sixth left spaces, and the ribs are lifted. In the left back there is slight systolic retraction of the eleventh and twelth ribs and the region just below. There is no retraction in the right back. The cardiac dulness is in the second space for an inch, in the third space from the mid-sternum to the nipple line, in the fourth space from one inch to the right of the sternum to one inch outside the left nipple, and in the fifth and sixth spaces from one and a half inches to the right of the sternum to one inch outside the left nipple. On deep inspiration the dulness disappears from the second space, but the rest of the area remains. At the apex are heard a short loud first sound, a loud, rough systolic murmur, and an indistinct reduplicated second sound. The systolic murmur is conducted round to the back. Over the tricuspid area a first sound, a blowing systolic murmur, and a slightly reduplicated second sound, are audible. At the pulmonary cartilage there are heard a first sound, a rough systolic murmur, and an accentuated and reduplicated second sound. At the aortic cartilage a first sound, a soft systolic murmur, and a second sound are heard. The liver extends nearly three fingers' breadth below the costal margin. The epigastrium is a little drawn in during inspiration, and the rest of the abdomen moves only very slightly in respiration. The lungs are normal, with good resonance and good breath sounds at both bases.

Of these cases the first is one of aortic disease of rheumatic origin, and the others of mitral regurgitation, with a variable amount of stenosis. In Cases 1, 2 and 4 there is evidence of adhesion of the pericardium to the chest wall as well, but in Case 3 the heart moves freely under the ribs, and the lung expands well over it, so that the sign is much more important, as being the only clear evidence that the pericardium is adherent. This sign has long been pointed out by Sir William Broadbent in the wards of St. Mary's Hospital, but, so far as I have heard, has not had sufficient importance attached to it elsewhere. Adherent pericardium has frequently such a serious influence on the course of valvular disease, that any aid towards the diagnosis seems worthy of attention.

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THE NATURAL HISTORY OF HARDWAR FAIR CHOLERA OUTBREAKS.

BY SURGEON-CAPTAIN H. HERBERT, F.R.C.S. ENG.

BEFORE 1892 observation had definitely associated the outbreak of cholera at Hardwar with but one condition—the overcrowding at Kumbh fairs. The only two epidemics of the thirty-four years—1858 to 91[1]—had fallen on two of the three Kumbh years of that period, and these were the only two occasions on which the crush was especially remarkable.[2] The estimated attendance of pilgrims in 1867 was 1,250,000, and in 1879 500,000 or 600,000.[3] At the third Kumbh Mela, 1891, the number of pilgrims—269,345—was scarcely larger than at the Adh Kumbh of 1885, where it was 262,621. There can be little doubt that the holy water drunk at, and carried away from, these gatherings constitutes the only possible means of such immediate and general spread of the cholera poison as was seen in 1867,[4] for example. That is to say, the excessive crowding of bathers at the two greater Kumbh Melas must be regarded as having in some way helped in rendering the water of the Sacred Pool or of the Bhun Ghora tank, or of both, an efficient means of cholera diffusion. Obviously another factor—reduction in quantity of the sacred water—may, as far as the fouling of the water is concerned, have the same result as increase in the number of bathers. This is what happened in the big cholera year 1892. It was one of the driest seasons on record in Northern India. "In the submontane tracts many of the streams were dried up, and the water level in the tanks and wells was much lower than usual."[5] The table[6] here introduced shows that the river was lower in 1892 than in any other of the available series of years[7]; and the deficit at the sacred bathing Ghât was in this year rendered extreme by change in the channel of the river.

Volume of the Ganges at Hardwar in cubic feet per second at the time of the principal annual fair.

Year	Volume	Year	Volume
1881	8000	1888	7000
1882	7000	1889	12000
1883	7000	1890	5500
1884	7000	1891	9000
1885	10000	1892	5000
1886	12000	1893	11000
1887	6000	1894	11000

Though only 70,000[8] people had assembled, yet "it was impossible, however, to keep the water in the bathing-pool so fresh as on the former occasion (1891, Kumbh Mela, 269,000 pilgrims) on account of the smaller volume of water in the river and the direct obstruction to its flow in the sacred pool by recently-formed obstacles and foreshores."[9] "The section of the river channel varies considerably from year to year under the action of the annual floods."[10] Unfortunately, this introduces such an element of uncertainty, that although the sacred pool was fouler in 1892 than at the Kumbh Mela of 1891,[11] we cannot be perfectly certain that it was fouler than in other years, such as might have been characterised by only ordinary accumulation of pilgrims and only moderate drought. The evidence is suggestive only. Though it is possible, it is far from proved that the want of water in 1892 was sufficient to raise the foulness of the pool (and tank?[12]) to a level comparable with that of 1867 and 1879, and above that of all intervening years. Of the other cholera years, 1879 was characterised by moderate drought;[13] and the great mela of 1867 fell on a season at least as dry as ordinary.[14] The exemption from cholera attack of the last Kumbh Mela, 1891, was ascribed[15] to the very elaborate sanitary arrangements for the first time in force; but the evidence is very strong that it was due rather to a severe and prolonged winter season. The complete inefficiency of the sanitary arrangements was well shown by the cholera outbreak in the following year.[16] There were no extraordinary sanitary precautions in 1885, when the number of pilgrims was almost the same as in 1891; yet cholera did not break out. The winter was severe,[17] as in 1891, and the river consequently high. (See table.) And there have been other Kumbh and Adh Kumbh years—e.g., 1855 1861, 1873 with neither special precautions nor cholera. It is now fairly

[1] Epidemics spread from the fairs of 1857 and of 1892.

[2] Figures for the Adh Kumbh fairs of 1861 and 1873 are not available; they may safely be taken as very much less than at the two Kumbh Melas mentioned.

[3] 500,000: Government of India Sanitary Report for 1892, p. 139; 600,000: Government of India Sanitary Report for 1879, p. 124.

[4] "The simultaneous outbreak of cholera on the evening of April 12th in every section of the Hardwar encampment is a phenomenon of great interest. ..... We find a great multitude, which on April 11th was so little tainted with cholera as to be believed to be free from it, thoroughly contaminated in all its parts on the 12th."—Sanitary Administration Report for the Punjab for 1867.

[5] Government of India Sanitary Report for 1892, p. 141.

[6] This table was very kindly supplied by Mr. Bhordon, Under-Secretary to the Government Irrigation Department North West Province and Oudh. He states that the calculations are only very roughly approximate; the volumes given are too low for years of high discharge, i.e., wherever 7,000 cubic feet per second was exceeded. The table includes all the available years.

[7] The variation in the volume of the river is quite small compared with the variation in the number of pilgrims in different years. But it must be borne in mind that the effect of a small change in the level of a river is much exaggerated in its shallower portions.

[8] Surgeon-Colonel Hutcheson, late Sanitary Commissioner to the North-west Provinces and Oudh, tells me that this number is about half of the average accumulation actually present at the height of an ordinary annual fair.

[9] Government of India Sanitary Report for 1892, p. 140.

[10] Mr. Bhordon.

[11] In 1891 the river was full, probably more so than is indicated in the table. "The cold weather was characterised ..... by excessive snowfall in the Himalayas" (India Weather Review Annual Summary, 1891, p. 476). "The cold weather rainfall was the heaviest on record in many parts of Upper India" (India Weather Review Annual Summary, 1892, p. 529).

[12] The construction of a syphon bringing fresh water to the Bhun Ghora tank in 1891 renders its condition in 1892 not readily comparable with that of earlier years.

[13] "The cold weather of 1878–79 was remarkably free from storms in Northern India, and the rainfall of the period was hence considerably below the normal."—Indian Meteorological Memoirs, vol. iv., part viii., p. 580.

[14] The total rainfall at the nearest meteorological station, Roorkee, seventeen miles away, of the first four months of 1867 was practically normal in amount—viz., 4·05 inches; on the hills it was below normal for this period judging, from the Naini Tal record, 11·80 inches (average over 17 inches).

[15] Brit. Med. Jour., 1894, vol i., p. 363.

[16] "The sanitary arrangements at the fair (1892) were those which proved so successful in 1891; it was impossible, however, to keep the water in the bathing pool so fresh."—Government of India Sanitary Report for 1892, p. 140.

[17] "The cold weather of 1885 was ..... unusually severe."—Indian Meteorological Memoirs, vol. iv., Part VIII., p. 661.

well recognised that the essential sanitary requirement for the prevention of cholera spread here is a very free supply of fresh water, especially at the most crowded Melas, in very dry years, and when the disease is unusually prevalent elsewhere in India.

There was, however, another climatic feature which almost certainly helped in the development of the cholera of 1892. It was not only one of the driest, it was one of the hottest seasons on record.[18] It is significant that cholera broke out on March 22nd, and that the period, 21st to 27th, was the hottest portion of the hottest March on record.[19] Yet this does not mean very much after all, for the fairs have commonly lasted till April 12th, on which date the air temperature in other years must often have been as high as on March 22nd, 1892. On the other hand, it is readily conceivable that the unusually powerful heat rays may have worked to great advantage on the slow and shallow current of the sacred pool in 1892. In one of the other cholera years (1867) the weather appears to have been cooler than ordinary at the time of the outbreak (April); but in 1879 the mean air temperature at Roorkee for the month of April was 3° above the average.[20] Besides 1892 there have been only two Aprils (1875 and 1880) at all hotter than this. On the whole the temperature factor in the origin of the Hardwar cholera outbreaks appears to be of decidedly secondary importance to those affecting the cleanliness of the water.

I have left till last an important consideration—that of the varying prevalence of cholera at the time of the fair among the general population of India, whence the pilgrims are drawn. The cholera mortality of March, 1892, was the highest on record for that month;[21] it was specially high in Bengal. For 1867 the records are incomplete, but it is known that the disease was widely diffused in the country about Hardwar for months before the great Mela.[22] In the early part of 1879 cholera mortality was distinctly less than ordinary.[23] It is noteworthy that the spread from Hardwar in this year was very much milder than in the other two epidemic years. Excessive general prevalence at the time of the great fair must mean an increased introduction, or at least a greater certainty of introduction,[24] of the virus into the sacred water at Hardwar. The same thing is brought about also by the increase in the proportion of bathers, absolute or relative, which has been already discussed. And the question arises whether this may not explain in some measure the origin of epidemics here. But if so it must be in quite small measure, for nothing but the local reproduction of the organism will suffice to explain its wonderfully rapid general diffusion here. And in the laboratory the growth of a microbe depends much more on the character of the culture medium and on the original quality of the organism than on the quantity sown. Excessive prevalence elsewhere means not only increased chances of planting the microbe at Hardwar; it means the sowing of an unusually active organism, one more likely to thrive and multiply. In this way it may increase the tendency to outbreaks at Hardwar. While the effect of excessive crowding of bathers may also be explained in another way, the greater fouling of the water may render it an exceptionally favourable culture material.[25] There is substantial evidence[26] that cholera mortality in India increases with the shrinkage of tanks and other surface water-supplies; and the water of the tanks as it runs low has the same fouling influences at work in minor degree (the stirring up of the mud from the bottom and the direct pollution by the washing of clothes and bathing of the people) seen superlatively at the great fairs. And the suitability of liquid mud for cholera growth is possibly seen also in the enormous mortality attained in Berar when the great thirst of the black cotton soil is appeased by heavy rains, and when the whole country is "converted into a deep, tenacious mud." The vast importance of the culture material at Hardwar is seen in the fact that the cholera which spreads from the fairs is not that which is carried to them. Developing under special conditions in a place where the disease naturally has but a feeble existence,[27] the virus acquires powers of resistance well in advance of those possessed by ordinary Indian cholera. The new growth spreads rapidly and certainly over country where cholera is comparatively seldom seen,[28] and is credited with having been the origin of a European pandemic.[29] The influence of the condition of the culture medium is seen also in the fact that cholera may often be carried to the fairs and fail to spread there.[30] That the spread depends on the quality of the specialised local product rather than on its quantity is suggested also by the observation that the result in 1892 from the dispersal of 70,000 pilgrims was at least similar in magnitude[31] to that in 1867 from the scattering of probably a million people;[32] and Surgeon-General Cunningham, in his report on the epidemic of 1879,[33] notes that there was "no relation between the number of pilgrims and the extent of the disease in different districts." To sum up, there is substantial evidence to support the following suggestions: (1) the fouling of the sacred water by exceptionally large proportion of bathers to the quantity of water available may render it a very favourable medium for cholera development, and so determine the origin of far-reaching epidemics; while (2) the growth of the organism at Hardwar may be assisted by unusually hot weather; (3) virulent cholera elsewhere in India being effective rather in the character than in the quantity of the virus carried to Hardwar.

Bombay.

[18] "Higher day temperatures were noted in March, 1892, over the whole of the interior of India than have been observed during the previous twenty-five years, and the month is hence the hottest March on record."—Government of India Monthly Weather Review, March, 1892, p. 82. The highest temperature registered at Roorkee was 102·2° F., just one degree higher than the highest recorded in March of any other year.

[19] I know of no evidence to show that heat in India, however excessive, is ever in itself other than stimulant to cholera development.

[20] Monthly mean air temperatures have been recorded at Roorkee since 1866. The variations from average of the three cholera years are:—1867: March (about) + 0·6°; April (about) − 2·2°. 1879: March − 1·1°; April + 3°. 1892: March + 1·7°; April + 5·1°.

[21] The total cholera mortality of British India in March, 1892, was 46,089, the next highest record being in 1891—viz., 33,986,—the average for the fifteen years 1879-93 being 18,066. Out of the total of 46,089 deaths 31,235 happened in Bengal.

[22] See Bellew's "History of Cholera in India," p. 425.

[23] The mortality for March was 11,800, for April 29,324, the average for the fifteen years 1879-93 being 36,980.

[24] The great fair occurs near the height of the Bengal cholera season and when the mortality is rapidly on the increase in other directions, so that seldom can the disease fail entirely to be carried to these gatherings.

[25] The bathing pool at the Kumbh Mela in 1891 is thus described: "As the bathing went on the clear stream became a muddy one, and the water collected from any part of it smelt in a few hours offensively, and the micro-organisms developed from it were legion."—Brit. Med. Jour., 1894, vol. i., p. 361. Of the pool in 1867 it is said: "The water within this space was during the whole time thick and dirty, partly from the ashes of the dead brought by surviving relatives to be deposited in the waters of the river-god, and partly from the washing of the clothes and bodies of the bathers."—Government of India Sanitary Report for 1867.

[26] Indian Medical Gazette, 1894, p. 329 et seq.

[27] The average annual cholera mortality of twenty-seven years in the Saharanpur District, in which Hardwar is situate, is only 0·25 per 1000.

[28] Each of these epidemics spread rapidly over the Punjab (including its most immune tracts), Sind, and Cashmere.

[29] Macnamara in Davidson's Hygiene and Diseases of Warm Climates.

[30] Isolated cases of cholera are not uncommon at the fairs; the vibrio was detected in the water of the sacred pool in 1891; and in 1872 there was a localised outbreak confined to a single band of pilgrims who left their mark on the places they passed through.

[31] The mortality figures of the two years are not strictly comparable, owing to the imperfect registration of the earlier year.

[32] The estimate of the number present on the great bathing day made at the time is nearly as large as that of the total attendance of the whole period of the fair (see Bellew's History of Cholera in India, p. 518).

[33] Government of India Sanitary Report for 1879, p. 118.

ON VAGINAL HYSTERECTOMY.

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THE three cases I am about to record are examples of a large class of cases of malignant disease of the os and neck, or lower third section of the organ, that come under observation, in which a mass of cauliflower epitheliomatous growth occupies the cavity of the vagina and discharges a foul and copious sanguineo-purulent fluid, at times a flooding supervening, all tending to lower the patient's general health and strength. The mass of growth may either press on to the rectum, causing pain in the back and hips and difficulty in relieving the bowels, or it may press anteriorly on to the bladder, giving rise to the troubles suffered in consequence and being most distressing to the patient. The patient will present a pale, exsanguinated, and anxious look, and there are many who, if they think that they have not passed the time of the menopause, will attribute much of their pains and discharges to its

cause; others, in whom the periods are still maintained, will perhaps seek advice sooner for the discharge complained of; but how numerous are the women, married or unmarried, whose attention is called to their unfortunate condition for the first time "then" by the examining surgeon or by a casual examination by their own medical man, shortly before being sent to a specialist or recommended to go to some hospital for further advice. It is not unusual to find a woman really ignorant of her state when the malady has reached the stage of deep excavation of the uterus and infiltration along the broad ligaments, with fixation of the organ from malignant disease, rendering her condition such that non-surgical interference is the only course to be advised, and although it may seem marvellous that such a state of things should exist unbeknown to the patient, yet such is the fact. It is in these border-line cases, so frequently met with, that it becomes a very serious question as to which is the best course of treatment to advise. In many instances I would most strenuously recommend that the patient be severely left alone so far as operative interference is concerned, only alleviation of the suffering being attempted by the exhibition of drugs; the vagina should be kept as sweet as possible by medicated douches or simple irrigation, and attention should be paid to the bowels, the patient being put in the best condition to cope with the advance of the disease, until death releases her from her sufferings. When operative interference suggests itself the question arises, What operation will best meet the case? and this will be answered by the condition found on examination. The first consideration is the amount of mobility of the uterus. If it is not mobile, it may be assumed that the disease has already extended or infiltrated along either or both of the broad ligaments; these should be critically examined, which is more easily done through the rectum, and possibly under an anæsthetic if the patient be nervous or cannot bear slight pain. If the broad ligaments are free from extension of the disease, then supra-vaginal amputation will suggest itself. I have treated cases by chloride of zinc paste; this treatment cannot be carried out in this class of cases, because invariably when supra-vaginal amputation is performed the peritoneum is of a necessity opened, which in itself would debar the preparing and excavating of a cavity in the fundus for the insertion of the chloride of zinc plug of cotton wool. This treatment must be reserved for those cases where the disease originated in the neck or fundus of the uterus, and in which the disease has not eroded the os, and where the mucous membrane of the vagina is intact. In all cases, before deciding on any operative interference, it is necessary to examine the vaginal mucous membrane, for if the disease has spread to the mucous membrane the deeper submucous tissues have already become infected and recurrence of the disease is bound to follow, and it is a contra-indication to removal by partial or total methods. In these border-line cases, when the growth is found to occupy the vagina the finger may be able to pass round the mass, and though the growth is found to emanate from either one lip of the os, or usually, as it does, from the neck, it may be observed that the fornices of the vagina and the mucous membrane around are free and therefore present a favourable prognosis, and operation may be justifiable. Before, then, deciding on total removal it is well to postpone its being undertaken until all the steps of supra-vaginal amputation have been performed and the uterus has been divided off at the internal os. Of a necessity the peritoneum will have been opened both behind and before, and the bladder stripped up. The portion then removed I have invariably handed over to our pathologist, Mr. Plimmer, or, if he was not present, to one of my colleagues, to examine. If it should turn out that the upper surface seems to be normal and free from disease, it is assumed that the stump of the uterus is also free and that we have got beyond the disease. In this case one stops short of doing more, but in case there should be even the smallest doubt of disease showing on the cut surface there must be no hesitation in then completing the entire removal of the organ. During the removal of the part by supra-vaginal amputation the lower uterine arteries of a necessity are divided and clamped and afterwards tied, which is the first stage towards total extirpation. If proceeding to total removal the fundus of the uterus is seized, usually on its anterior surface, with a pair or more of vulsellum forceps, and by drawing on the fundus anteflexion is produced and the fundus is coaxed down and delivered to view; it may so happen that retroflexion may be the more easy to do, when the posterior surface of the uterus is to be seized and the uterus is coaxed down in the posterior fornix. One cannot be wedded to either method, but should act according to the most expeditious plan that presents itself. The tube, round ligament, and remainder of the broad ligament on one side are transfixed with silk ligatures and tied; one end of the ligature is allowed to remain long and the other end is cut short, a pair of pressure forceps being applied near the ligature on the uterine side before the part is divided off. The second side is treated in the same way, when the uterus, being freed, is removed. The parts are douched out with warm boric acid solution, and any bleeding point that may show itself is caught and tied; the parts are then dried and the toilet is completed. I usually insert a glass drainage-tube and around this pack the vagina with a long strip of iodoform gauze, and after a wash-up if necessary the patient is removed to her bed. The position during operation is the lithotomy one, maintained by means of Clover's crutch, the buttocks being brought well over the edge of the table. Ether is employed as the anæsthetic; the time occupied is usually from forty to forty-five minutes. If the patient has passed the time of the menopause, although the ovaries may present themselves, I have in most of my cases allowed them to remain; I have observed that they form a buffer to the coming down of the bowel, and therefore it is advantageous to leave them. If in a younger woman I could be persuaded that they, if left, would cause no ulterior inconvenience I would be inclined to leave them with the same object as I have stated; however, if I have found an ovary cystic and much enlarged, I have removed it. After operation I usually give an anodyne, and guard during the first twelve hours against sickness from the anæsthetic or threatened collapse by giving, if necessary, some brandy in warm water. On the morning of the third day, or at least twenty-four hours after the operation, the vaginal packing and drainage-tube are removed, the parts are then irrigated with a warm solution of boric acid, and the vagina glass drain is reinstated and gauze packing plugged in, but not so firmly as before. At the end of the next twenty-four hours, if no discharge be noticed on the perineal pad, the glass drain may be altogether withdrawn and a strip of iodoform gauze alone inserted. About the fourth or fifth day possibly a discharge of pus will be noticed on the perineal pad. I say possibly, for in some cases pus is not formed; in case it is, I insert a red-rubber large-sized drain. Douching is continued night and morning. The ligatures come away between the tenth and twentieth days. A soft rubber catheter is kept in the bladder, having been inserted at the time of the operation and utilised as long as any dressings are applied. About the morning of the third day I generally give a saline aperient, and if the abdomen should be at all tympanitic, or the patient should suffer from flatulency, turpentine fomentations are applied, and possibly a turpentine enema is administered. The most critical period is about the fourth day, and in my experience if that day is passed favourably the patient makes an uninterrupted recovery, after which she must run her chance of recurrence. The risk of these operations, especially in such far advanced cases, is danger of damaging the bladder, as disease encroaches on its wall and weakens it, so that a rent is apt to be made into the viscus. In such a mishap it is necessary to keep the catheter in the bladder and await the healing and closing in of the vault of the vagina, when the fistula will be found in the vaginal cavity and may be healed by means of the cautery or nitrate of silver; these means failing, then only it will have to be treated by the usual operation for a vesico-vaginal fistula. We have tried vaginal bags to catch the urine when the fistula cannot be dealt with. The risk of damage to the ureters I only mention in order that the accident may be avoided.

In Dr. James Braithwaite's paper on the Micro-organism of Cancer, published in THE LANCET of June 29th, 1895, he states that out of a very large Jewish population in Leeds, in not one Jewess has he ever met with cancer of the genital organs, whereas it is extremely common amongst the Christian women, the inference being (assuming the existence of a micro-organism as the cause of cancer) that it is introduced or not introduced by the husband, according to his faith. On microscopic examination of the secretion frequently contained within the prepuce some spores were found, and also two minute loops of mycelium identical in appearance with that which he describes. If it should prove (after Dr. Braithwaite) from this discovery of his, that this micro-organism is the real explanation of the cause of malignant growth, then he sums up in No. 3 answer to the question he lays down—viz., It is possible

that we may have to return to a certain Mosaic rite in order to save our wives from uterine cancer, unless the daily use of soap will do away with this necessity. I for one tender my greatest appreciation and thanks to Dr. Braithwaite for his very suggestive paper. It will be seen that in the first and third of these cases recurrence had taken place after a previous operation where removal of the os through the neck had been performed, and that the second was a primary case.

CASE 1.—A married woman aged fifty, mother of two children, had had good confinements; eight months previously she was first troubled with a white discharge from the vagina. In September, 1894, she was admitted into the Chelsea Hospital for Women under the care of Dr. Duncan, who operated and amputated the os. She was admitted into the Cancer Hospital on Dec. 3rd, 1894, and stated that since the previous operation she had had a continual bloody discharge. On examination the vagina was found to be long, and recurrence of malignant disease of the stump extending up the uterine canal was felt. The mucous membrane of the vagina posteriorly was diseased. The patient was of a more or less happy disposition, and was fairly well nourished. On the 8th I performed vaginal hysterectomy. The mucous membrane was incised well clear of the disease. Some of the ligatures came away on the tenth day after operation, and the last ligature on the twenty-second day; she made a good recovery and was discharged. I saw her six months afterwards and found a slight recurrence in the extreme vault. This I treated with iodine, what I call an iodine bath—that is, fixing the speculum firmly applied against the vault and then pouring sufficient liniment iodi down the speculum to cover the disease, which takes about half an ounce, and this is kept in contact for about five minutes and then run off and the parts dried. This has been frequently repeated at intervals of a week, and it has certainly done good. This case is an example of recurrence from previous implication of the mucous membrane.

CASE 2.—A married woman aged forty-five years was the mother of nine children, the last one born seven years ago; her labours had been natural. The patient was recommended by Dr. Fitzgerald of Harrow-road, and was admitted to the Cancer Hospital on May 6th, 1895. She had been troubled with a discharge for the previous two months, and had suffered from bearing-down pain and a dragging in the legs. She was always tired and everything seemed a trouble. She was pale and of a placid disposition. On examination the vagina was found to be occupied by a large mass of epitheliomatous disease; the finger was with difficulty got round and the vaginal mucous membrane was felt to be smooth and apparently not infiltrated; high up in the neck anteriorly a boss was felt pressing forward; the uterus was fairly movable. Vaginal hysterectomy was performed on May 11th. The disease was very extensive, and was first removed by working with scissors from before backwards through the neck; there was no bleeding. The parts were then freely douched out with carbolic solution and the further steps for total removal followed; the ovaries were allowed to remain. The specimen when opened showed extensive disease and had near the fundus a cancerous nodule. The patient made a good recovery.

CASE 3.—The patient had been a widow for twelve years and was mother of six children. She was admitted to the Cancer Hospital on April 25th, 1895, and complained of a purulent discharge, which was sometimes bloody. On examination the vagina was found to be occupied by a fungating cauliflower mass; the vaginal walls were not implicated, the fornices were high up, the uterus was movable, and the broad ligaments were free. Eight years previously she had been admitted into Middlesex Hospital, where the neck was amputated for disease of the os. On May 11th I performed vaginal hysterectomy. The diseased mass was first removed, and some difficulty was experienced in incising the mucous membrane. The operation of total removal was completed; the ovaries were left. Convalescence was somewhat protracted, but the patient made a good recovery and was discharged.

These three specimens I had the pleasure of exhibiting at the British Gynæcological Society's meeting on the 11th inst.

Manchester-square, W.

THE Gaskell medal and prize in mental and nervous diseases at the Royal Bethlem Hospital has been awarded after examination to Mr. George W. F. Macnaughton, M.B., C.M. Edin.

A FEW WORDS ON SOME COMMON FORMS OF REFLEXES OF NASAL ORIGIN.[1]

BY ADOLPH BRONNER M.D. HEIDL.,
SURGEON TO THE BRADFORD EYE AND EAR HOSPITAL, AND LARYNGOLOGIST TO THE BRADFORD INFIRMARY.

A GREAT deal has been written on nasal reflexes. As far back as 1565 we find that Botallus records cases in which the scent of flowers brought on pain in the head and difficulty in breathing. Van Helmont in 1577 describes some typical cases of hay fever. Bostock[2] was himself subject to hay fever. No great importance was, however, attached to this subject until 1871, when Voltolini[3] published several cases of asthma in which nasal polypi were found, and where the removal of the polypi cured the asthma. Fraenkel, Lennox Browne, and others soon followed suit, and proved that the cases recorded by Voltolini were by no means uncommon. In 1881 Hack of Freiburg published his well-known book on Nasal Reflexes,[4] in which he attempts to prove that not only asthma, but many other similar symptoms can be caused by intra-nasal irritation. He divides these reflex symptoms into four classes—(1) spastic, (2) sensory, (3) vaso-motor, and (4) secretory. Numerous cases are recorded of asthma, hay fever, megrim, supra-orbital neuralgia, swelling and redness of the nose, vertigo, epileptiform attacks, &c., which had been cured by intra-nasal treatment. Hack's theory was that these reflex symptoms were due to irritation of the terminal fibres of the fifth nerve, which irritation was caused by the swelling of the cavernous tissue of the mucous membrane of the turbinated bones, especially the anterior part of the lower turbinated bones. His idea was to remove this cavernous tissue by the galvano-cautery, and then any irritation of the nerves would be impossible. Experience, however, soon proved that this theory could not be quite correct. Then, in the first place, the destruction of the cavernous tissue did not always prevent a recurrence of the reflex symptoms. Secondly, in many cases artificial irritation of this part of the mucous membrane brought on the reflexes without causing any swelling of the cavernous tissue. Hack himself, in 1885,[5] practically abandons his theory. In 1882 Fraenkel, J. Mackenzie, and others opposed Hack's theory, and stated that the reflexes were caused by some irritation of the terminal fibres of the fifth nerve, due to changes in the mucous membrane of the turbinated bones or septum, but that the swelling of the cavernous tissue need not have anything whatever to do with the irritation. Lublinski,[6] Heymann, and others think that the reflexes cannot occur unless there is a predisposing neurotic temperament. Boecker repudiates the reflex theory altogether, and states that the intra-nasal changes are mostly incidental complications or that they themselves form part of the symptoms of a central neurosis. In speaking of hay fever Morell Mackenzie[7] said: "The causes of hay fever may be conveniently divided into the predisposing and the exciting. Race, temperament, occupation, education, mode of life, sex, heredity, and age are some of the predisposing causes." Mackenzie did not seem to believe in local treatment for the cure of hay fever. Everyday experience, however, proves that many cases of hay fever, though of course by no means all, are due to a reflex action originating in the nose. Woakes[8] says that the reflexes are—(1) symptoms due to excitation of the sensory-motor nerve elements of the region implicated; and (2) those which involve vaso-motor nerves of the sympathetic system in relationship with the affected structures. As regards asthma, he thinks that it is due to irritation of or pressure on the nerve of Cotunnius, where it crosses the osseous part of the nasal septum. I myself am of opinion that we ought to divide nasal reflexes into two classes: (1) those cases in which there is some local irritation of the terminal fibres of the fifth nerve, due to nasal polypus, pressure of the mucous membrane of the turbinated bones on

[1] Abstract of a paper read before the Bradford Medico-Chirurgical Society, April, 1895.
[2] Transactions of the Royal Medical and Chirurgical Society, vol. x., 1819.
[3] Anwendung der Galvanokaustik, &c.
[4] Ueber eine Operative Radical Behandlung gewisser Formen von Migrane, Asthma, &c.
[5] Berliner Klinische Wochenschrift, Nos. 21 and 22.
[6] Deutsche Medicinische Zeitschrift, No. 41, 1886.
[7] Hay Fever: its Etiology and Treatment, with an Appendix on Rose Cold. 1885.
[8] Nasal Polypus, 1887.

the septum, local atrophy or hypertrophy of the mucous membrane of the turbinated bones or of the septum, disease of the turbinated bones themselves, foreign body in the nose, &c.; and (2) those cases in which the nasal changes are not primary, but are themselves the outcome of some central neurosis. In the latter class of cases the local treatment of the nares, such as the use of the galvano-cautery, stops the reflex symptoms, not because it removes the irritation, but because it acts as a powerful counter-irritant. McBride[9] advocates this latter theory.

There can be no doubt that intra-nasal irritation can and frequently does give rise to reflex symptoms, such as asthma, hay fever, megrim, vertigo, and epileptiform attacks, but it does not by any means follow that it is always the cause of these symptoms. We know that in many cases gastric or uterine irritation can give rise to similar symptoms. It follows, however, that it is absolutely necessary that in all these and similar cases the nares and post-nasal space should be carefully and thoroughly examined. If we can find any obstruction to the free passage of air, such as hypertrophy of the mucous membrane, polypi, deviation of the septum, post-nasal growths, &c., or any changes in the mucous membrane (hypertrophy or polypoid degeneration, &c), these must be treated and cured. Even if the treatment does not remove the symptoms it cannot do the patients any harm, but must be of benefit in other respects. I need not refer to the connexion between these diseases and those of the ear and throat, and how any nasal obstruction prevents the normal development of the lungs and arrests the growth of the body and of the mind. Innumerable cases of asthma, hay fever, megrim, and supra-orbital neuralgia have been cured by intra-nasal treatment, and a large number have been recorded. I can call to mind a series of typical cases of asthma, hay fever, sneezing, megrim, and redness and swelling of the nose, which have come under my notice, and which have been cured in most cases by removal of nasal polypi or by the application of the galvano-cautery to the diseased mucous membrane of the lower turbinated bones.

Bradford.

A CASE OF POST-PARTUM TUBO-OVARIAN ABSCESS IN A PECULIAR POSITION.

BY FREDERICK EDGE, M.D. LOND., F.R.C.S. ENG.

THE patient was a woman twenty-one years of age, of slight but active frame, and generally sound. Four months previously she was confined of her firstborn child, and she informed me that she had had a severe confinement. There was no special cause of obstruction or hæmorrhage, neither was laceration to any degree of the parturient canal noticed. After the birth of the child the patient did not gain strength and recover quickly, but had a severe illness with fever, pain in the left side of the pelvis and down the left leg, and a mass in the left side. When admitted there was no fever, but the pulse was from 90 to 100. She complained of pain in the left side and general debility. The pain was much increased if she was up for a short time. On examination of the abdomen a prominence in the iliac fossa was seen; this could be felt as a firm, rounded, crescentic mass, in which fluctuation was doubtful, and it was dull on percussion. Per vaginam the uterus was felt to be fixed to a mass on the left side which spread to the pelvic wall. Bimanually the uterus could be felt distinctly, and a boundary marking it from the lateral mass, but not separating it by any division, was perceived by a difference in consistence and roughness of outline. By the sound the uterine cavity was found slightly enlarged and dilated, but not more than one would find often at the same period after labour. The mass did not push down the posterior fornix, and the posterior wall of the uterus was free. As there were no urgent symptoms the patient was kept at perfect rest for six weeks, and her bowels were constantly emptied by saline aperients; alteratives and absorptives, counter-irritants, with ichthyol-glycerine applications in the vagina and hot douches and enemata, were all carefully tested, and their conjoint action was accompanied by a gradual lessening of the swelling, and would, perhaps, have attended its disappearance if the patient could have been rested indefinitely. At the end of six weeks she was allowed up for a couple of hours, and she next morning noticed a great increase in the size of the mass and in the pain and discomfort. From the shape of the swelling, its position, the absence of fever, and its history, I diagnosed the condition as one of pyosalpinx with cellulitis of the broad ligament, and as I could not keep the patient on her back indefinitely, she being a labouring woman, I thought it would be good practice to explore, and, if found, to remove the pyosalpinx. On opening the abdomen great adhesions were separated, and then for some time I could not make out the condition of the parts, or what I had to deal with, or what I was going to do. The pouch of Douglas was free, which rather put me off pyosalpinx, and I was inclined to think that I had to deal with a simple plastic cellulitis of the left broad ligament. The omentum was in a column or rolled bundle, and was adherent widely in the left iliac fossa, which is uncommon in simple cellulitis. I tried to separate its adhesions, but failed, as the bleeding became severe. I then tied the whole omental bundle in two places, cutting between. It was evident now that the tube and ovary were implicated, and the resulting mass, which contained a fluctuating cyst of Tangerine orange size, was fixed high on the left pelvic wall and in the left iliac fossa, where the omentum had covered it and adhered to it and the parietal peritoneum. The tube and ovary and broad ligament with omentum were removed, together with some parietal peritoneum which was torn off. The attachments were tied off in two pedicles, one at the horn of the uterus and the other at the pelvic wall. The separation was very difficult, and the sigmoid flexure, which was intimately adherent, was badly torn, but not sufficiently in any place, so far as was noticed, to require suturing. A Keith glass drainage-tube was used after washing out with Mr. Lawson Tait's apparatus. The patient's pulse and temperature before operation were 90 and 98° F. respectively. There were collapse and great pain, so that an injection of morphia was given (in my own abdominal sections I have only given morphia twice before, and each patient died, so that necessity is great before I use morphia). An enema of one teaspoonful of common salt, half an ounce of brandy, one ounce of milk, and five ounces of water was given three times in the night. On the evening of operation the pulse was 124 and the temperature 98°. The next day the pulse was 140 and the temperature 98·8°. Slight distension was treated by calomel and enemata of soap, turpentine, glycerine, and castor oil. At 9 P.M. the pulse was 152 and the temperature 99·2°. The bowels did not act either with flatus or fæces, and two days afterwards fæcal matter exuded from the abdominal wound freely. As the enemata were irritant they were changed into free irrigation of the rectum with normal saline solution, which, passing upwards, helped to clear the abdominal channel. The patient gradually improved, and although the fæces passed through the abdominal incision alone for three days she felt better. Gradually more passed per anum, and now the fistula is almost closed. She is walking about at present and gaining strength and flesh.

These fistulæ are very chronic, and no doubt the silk ligatures act as setons. The points of interest in this case are to my mind as follows. 1. The absence of fever when the patient was kept resting. This seems to point away from pus in any cellular tissue and is more in accord with pus contained in a cavity lined by mucous membrane or its homologue as an ovarian follicle. 2. The peculiar position of the mass of exudation and adhesions around the cyst containing pus. In these cases of post-partum suppuration of the appendages it must be remembered that the germs have already gained access to these parts often at or before conception from the other side has taken place. They are generally unilateral; hence the tube which is carried up into the level of the iliac fossa during pregnancy, if inflamed, would form adhesions at this level, and after labour the descent of the uterus would tend to drag upon the adhesion and permit leakage, which would excite peritonitis and fix the omentum. A condition similar to this, if not the same, was described by Mr. J. W. Taylor, and he pointed out in certain cases the difficulty of making out such a tube sac owing to its position. 3. The frequence of post-partum suppuration in the tubes and ovaries. When we reflect on the possibilities which the corpus luteum of the ovary, a mass of lowly organised clot, offers, the widely patent tube in which ciliated epithelium must be merely side fringes at these times, and the uterine and vaginal states, we cannot be surprised at this. The abscess usually distends the ovary, but the tube mouth is spread on the ovary, and if detached the

[9] Brit. Med. Jour., Jan. 22nd, 1887.

abscess ruptures, as did the abscess cyst in this case. 4. The passage of fæces and flatus through the fistula alone for three days. This only shows the extent of the deficiency in the bowel wall, and perhaps the collapse of the distal bowel. This exercised my mind somewhat as to treatment. At first I put a glass, then a thick rubber, drainage-tube into the rectum, thinking to prevent the passage through the fistula by providing a constant escape per anum; but I afterwards removed it because it occurred to me that by keeping the distal bowel always collapsed I might entirely defeat my purpose, since the laceration in the bowel would thus be brought to gape more widely, and thus offer a direct passage into the fistulous track. This is merely theory, but it may be useful to think of these *minutiæ* in certain cases. It may be asked whether the operation has been of use at all, and I can answer that I believe it has, because it has removed a sac of pus from the pelvis. This sac would not have become absorbed quickly (the lessening by treatment was of the surrounding inflammatory exudation and adhesion chiefly). It could not without rupturing an organised cellular wall escape externally, as a cellulitic abscess does, and finally heal after long discharge. If it had subsided for a time so far as to allow conception again to take place there would have been trouble during pregnancy and every possibility of rupture and fatal peritonitis at the confinement. Should the fistula not close within six months I shall, with the patient's consent, reopen and remove the silk ligatures if possible. At such a depth I should not try to find the opening in the bowel and close it, unless, indeed, I am mistaken as to the remoteness of the fistula. The fistula has now healed up (July, 1895).

Wolverhampton.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

THE SURGICAL REPORT OF A CASE OF JACKSONIAN EPILEPSY WITH APHASIA, INTELLECTUAL IMPAIRMENT, AND PARTIAL HEMIPLEGIA, TREATED BY TREPHINING.

(Under the care of Mr. W. ANDERSON.)

IT is difficult to state the nature of the lesion which caused the symptoms in this case, but there can be no doubt as to the benefit which the patient has derived from the operation. It will be interesting to learn the ultimate result of the operation. For the notes of this case we are indebted to Mr. Cuff, late house surgeon.

The patient, a boy aged thirteen, was admitted into Arthur Ward, St. Thomas's Hospital, under the care of Dr. Payne, in September, 1894. He was the fifth and only living child of his mother, whose other infants were stillborn. Shortly after birth he manifested undoubted signs of congenital syphilis, including snuffles and sores on the nates and around the anus, which were treated successfully by mercurial inunctions. Up to the age of ten he was regarded as a bright boy; but from this period his mental and physical evolution came suddenly to a standstill without any apparent cause, and he became silent and morose. A year later he was seized by a fit of tremors and twitching of the mouth, followed by partial loss of speech and shuffling gait. He imperfectly recovered from this and continued to go to school, but six months afterwards he had an epileptic fit. Again an interval of improvement followed; but a few weeks later he suddenly became aphasic, and the defects in his intellect and gait became strongly marked. On admission to hospital he presented the aspect and development of a boy nine or ten years of age. His head appeared to be of good conformation, but his frontal eminences were unduly prominent, and his expression was stupid and rather vicious. The incisors were pegged, but there were no other marks of congenital syphilis. The intellect was gravely impaired; he was childish and irritable in manner, his speech was thick and hurried and usually limited to "Yes" or "No," but he appeared to understand when spoken to. He called things by the wrong names and did not recognise letters, although he could repeat words correctly when he heard the sounds. His legs showed a tendency to involuntary and sustained contraction of the extensor muscles, and in walking he kept the limbs widely separated. The arms were normal. The pupils acted to light and the right was smaller than the left. He improved up to Oct. 12th last, when he was attacked by epileptic fits, three in the day. On the 13th the fits were fourteen in number, and on the 14th as many as twenty. From this time they recurred in numbers of fifteen or twenty every day. During the fit the eyeballs turned to the right, the right arm was slowly raised and pointed forwards, the elbow was extended, the wrist flexed, the thumb flexed and adducted, and the third and fourth digits were bent. The right side of the face, with the right arm and sometimes the right leg, twitched, and the right pupil was dilated. The attack lasted for about two minutes, leaving the boy drowsy, with partial paralysis of the right side of the body. After the fits had set, in the right arm was found to be almost useless, all power of walking was lost, and the intelligence became infantile. After a consultation between Dr. Payne and Mr. Anderson it was decided to trephine over the motor area and explore the condition of the brain and membranes at that point. On Oct. 27th a circle of bone an inch and a half in diameter was removed from a point in front of the lower end of the fissure of Rolando, on the left side, exposing the membranes over the convolution of Broca and the lower parts of the precentral and second frontal gyri. The dura mater was found to be normal in aspect, and on incising this the brain with its arachnoid and pia mater bulged strongly into the wound, and it was noticed that the cerebral pulsations, at first indistinct, quickly assumed their natural character. The arachnoid was somewhat opaque and presented yellowish lines opposite the sulci. A grooved needle passed into the brain tissue in two or three directions revealed no abnormality. The incision in the dura mater was not closed, but the scalp wound was sutured and dressed. On the night of the operation the boy was very quiet, but spoke one or two words when addressed and seemed to be quite conscious of his surroundings. On the 31st the strength of the right arm appeared to have become greatly restored. No fits had occurred since the operation, but his temper was very irritable. The wound healed by first intention. From the time of the operation the patient made unbroken progress. The fits did not return, speech steadily amended and within a few days became fairly connected, the memory for names became stronger, and he was able to tell his own name and to write it, but there was still much to be desired. He recollected recent events vividly, and not only recognised a fellow patient who had just returned from a convalescent home, but mentioned the place from which he came. The irritability of temper subsided, and the power of observation and reasoning power rose daily to a higher plane. The gait became firmer, although in walking the legs were still kept somewhat wide apart, and the arm completely recovered its utility. When discharged on Jan. 6th, 1895, the restoration of his powers was still progressing, but he had not reached the full standard of his age. It was decided to await the course of events. The last report states that he is in good health, free from fits, and from paralytic symptoms, but his intelligence is still incomplete and his education at a standstill.

Remarks by Mr. ANDERSON.—Omitting all comments on the medical aspect of the case, it is sufficient to notice that the good effect of the operation, marked as it was by so rapid and extensive an amendment in the intellectual and motor powers of the boy and by the complete abolition of his epileptiform attacks, followed the mere removal of a portion of bone with a division of the dura mater, which could do little more than diminish intracranial tension and allow a better nutrition of the previously compressed structures. The bulging of the brain into the aperture and the speedy restoration of the normal pulsation immediately after the operation were significant in the same direction. It still remains to be seen whether a second operation over the upper precentral and frontal gyri may not be advisable with a view to influence further the still defective intellectual functions. It is not many years since cerebral surgery, except in cases of traumatic injury, was practically non-existent. It is true that in prehistoric times trephining was practised apparently as a remedial measure and without necessarily killing the subject of the experiment, and the operation was

recommended in certain cases by Hippocrates. What were the conditions for which the earliest operations were performed it is impossible to say, but within the historical period it was employed more or less unscientifically by surgeons for head injuries and was sometimes prescribed by the physician in a rather reckless way for internal disease. We are told, for example, that Philip William of Orange was trephined seventeen times for headache by order of his physicians, and as he survived, the fact at least speaks well for the skill and care of the surgeon. And it is interesting to learn that our modern practice was to some extent forestalled over 200 years ago in a book of but little value or importance, published in 1685 by a surgeon named Hugh Ryder, who trephined over the left motor area to relieve "a paralysis of the right arm, head, and tongue" following an injury to the opposite side of the head. A circle of bone was removed on the seventh day, setting free a quantity of black grumous blood, which blood, explains Ryder, "by pressing upon the meninges and sending forth putrid steams had been the occasion of the ill symptoms." The result of the experiment was successful. The method of cerebral localisation adopted in the case now reported was that published by Mr. Anderson and Mr. Makins in THE LANCET of July 13th, 1889. In this, to secure the indications most needed by the surgeon, the fissures of Rolando and Sylvius, it is only necessary to measure a median sagittal line from the glabella at the level of the upper margins of the orbits in front to the occipital protuberance behind, to bisect this and mark the mid-sagittal point. From the latter a tape is run down to the "preauricular" point immediately in front of the tragus at a level with the upper border of the meatus, and a point, the "squamosal," is marked at the junction of the lower and middle thirds of this "frontal line." A third line, the "squamosal line," drawn from the external angular process through the squamosal point gives the line of the fissure of Sylvius, the commencement of which is five-twelfths of the distance between the external angular process and the squamosal point. The fissure of Rolando is now found by marking two points, one half an inch behind the mid-sagittal point above, the other half an inch in front of the squamosal point below, and joining these by a line. The whole process is effected far more rapidly than it is described, and can be completed in two or three minutes with a common tape measure. The advantages that may be claimed for it are rapidity, simplicity, and adaptability to heads of all sizes and shapes. The sole appliance required is a tape measure graduated in inches and lines.

CLAYTON HOSPITAL, WAKEFIELD.

A CASE OF COMPLETE INVERSION OF THE UTERUS; RECOVERY; REMARKS.

(Under the care of Mr. W. STANGER.)

COMPLETE inversion of the uterus after delivery is one of the rarer accidents met with in practice, and constitutes a condition of extreme gravity. The hæmorrhage which accompanies inversion is sometimes sufficient to cause death before help can be given, in other cases it is not a marked symptom, and the greatest danger is from complications. The rarity of this condition is explained by the fact that a combination of special causes is probably required for its production, although undue traction on the cord must be regarded as an important and sometimes as a sufficient one. For the notes of this case we are indebted to Mr. C. Hutley, junior house surgeon.

A patient aged twenty-three, a primipara, was on Feb. 9th sent to the hospital with a note saying that she was suffering from extreme prolapse, pain, and hæmorrhage. The history was as follows. She had been confined on the 5th. The child was born at full time, living and healthy. The patient had had pain and some bleeding since. On the 9th a large mass protruded from the vulva, after which the bleeding and pain increased. From the midwife it was afterwards learned that the labour was somewhat tedious; it was a head presentation. The cord was above the average length and the placenta came away by itself ten minutes after the child. On admission the patient was blanched and rather collapsed. The pulse was fairly good and the temperature was 99 8° F. On examination of the parts a rounded, dark, reddish mass larger than a cricket ball was seen protruding from the vulva, on which the placental site could be distinctly seen. A few small blood-clots were seen on the surface of it. The patient was put under the influence of ether and the inverted uterus was well washed in carbolic lotion (1 in 40) and replaced by Mr. Stanger and Mr. Jones with much difficulty. An intra-uterine douche was then given, and also a hypodermic injection of ergotin. Uterine douches were given twice daily, and vaginal douches every four hours. On Feb. 10th the douches returned quite clear and sweet; the temperature was slightly raised. On the 11th the morning uterine douche returned slightly turbid; on the 12th the douches were quite clear. On the 24th the patient was quite convalescent, being able to get up, and on the 26th she was discharged.

Remarks by Mr. HUTLEY.—The most striking peculiarities in this case are as follows:—1. The patient was a primipara. 2. The fact that the inversion did not show itself till nearly five days after delivery. The patient had pain and bleeding. These symptoms justify one in believing that after delivery there was a partial inversion, which, acting as a foreign body, caused violent contractions of the uterus, and became more and more inverted until it projected from the vulva.

NORTH DEVON INFIRMARY, BARNSTAPLE.

A CASE OF ACUTE GENERAL EXFOLIATIVE DERMATITIS (PITYRIASIS RUBRA).

(Under the care of Mr. WALTER COOPER.)

VON HEBRA described this disease as a specific form of skin eruption, but rarely met with and having a close affinity with psoriasis. Bristowe[1] writes: "Its progress is slow and it is doubtful whether a cure is ever effected. When fully developed there is nothing except the history and progress of the malady to distinguish it from universally diffused psoriasis. Patients suffering from it remain apparently healthy in other respects for a long time; but they ultimately emaciate, become cachectic, and sink from exhaustion." The account of the following case is therefore of considerable interest, and it will be more especially so if the apparent cure becomes a permanent one. For the notes of this case we are indebted to Mr. F. Penny, house surgeon.

The patient, a woman aged twenty-eight, a widow with four children, she being one of a family of eleven, gave a good family history free from skin complaints, but she had been subject to epileptic fits. There was neither history nor evidence of either hereditary or acquired syphilis. Her first attack of any skin trouble was in the summer of 1884, when she had what seemed from her description to have been eczema on both legs; this lasted about two months and then disappeared; she had had somewhat similar attacks every summer or autumn since that time. In October, 1894, she had psoriasis (diagnosis of the medical man who attended her) on the calves of both legs and the flexor surfaces of both forearms, which in the early part of December began to spread, appearing on the trunk and rapidly becoming general, so that on her admission (Jan. 1st, 1895) she was completely covered with a dry scaly eruption (see Fig. 1). The scales varied much in size and were largest on the shins and around the ankles; they were irregular in shape, very thin, non-laminated, of a yellowish-white colour, very easily detachable, separate, never adhering into crusts, and excessively numerous, more than a pint a day being shed, and where shed fresh scales quickly formed. Under the scales the skin was a vivid red, except on the shins and around the ankles, where it was purple; there was no thickening of the cutis vera and no exudation and no puncta were visible to the naked eye. There was at times slight irritability of the skin, though this was never excessive and frequently altogether absent. The scalp was badly affected and the hair came out considerably during combing. (Fig. 2.) Her voice was thick and husky, and there was some congestion of the mucous membrane of the mouth, throat, and larynx. The urine was strongly alkaline, but contained neither albumen nor sugar. The temperature, pulse, and respiration were about normal and varied but little while the patient was under observation. On Jan. 1st the patient was sent to bed, and carefully protected from draughts and from chances of taking a chill. She was allowed a light and nutritious diet; cod-liver oil,

[1] Theory and Practice of Medicine.

and a mixture containing potassii iodidum, liquor hydrargyri perchloridi, and decoctum sarsæ compositum were given. Ichthyol and oleum olivæ in equal parts were kept constantly applied by means of bandages to the right arm, while the remainder of the body was enveloped in a pair of combinations soaked in liquor plumbi subacetatis, 2½ oz., with oleum amygdalæ to make one pint. On Jan. 9th much less scaliness was present, especially so about the trunk, and irregular streaks of more healthly-looking skin appeared on the chest, but the legs were not much improved. The medicine ordered on Jan. 1st was changed for an effervescing mixture containing three grains of quinine, the patient being allowed

FIG. 1.

Condition of patient on admission.

ordinary diet. On the 14th the ichthyol application was used for the left leg, but as it caused considerable pain it was given up on the 15th, and the lead and almond oil used for the whole body. Until the 26th the improvement (except on the legs) was most satisfactory, but on that date a few fresh patches were seen on the face and chest, which had become almost clear; these appeared as roseolous blotches, and in about twenty-four hours were covered with fine scales. On the 30th the improvement was very marked, and five minims of liquor arsenicalis were added to the medicine. Very little improvement took place during the next few days, and on Feb. 6th the medicine was changed again to the mixture of Jan. 1st. On Feb. 12th the left leg was still very troublesome, and an application of 2½ per cent. oleate of mercury was used, but as this caused a crop of small pustules it was discontinued. By the 16th in many places the skin had become quite clear, and where the disease still existed very few scales were formed. A lotion of glycerine, zinc oxide, and lime water was then ordered. On March 4th the few small patches of eruption still remaining were dressed with unguentum boracis, and the decoctum sarsæ in the medicine was changed for decoctum cinchonæ. The patient was now

FIG. 2.

An enlarged view of the back of the patient, showing a more advanced stage than in Fig. 1.

allowed to get up, but she was cautioned to carefully avoid exposure. On the 19th the eruption had entirely disappeared, the skin had become clear, was free from any staining, and looked healthy; but from fear of too early exposure the patient was retained in hospital until April 9th, when she was discharged apparently well though not feeling very strong. On May 24th the patient was still free from any kind of eruption, but she was weak and debilitated, and though able to get about and look after her family, expressed herself as not being strong enough for half a day's good work; this, however, may in part be accounted for by the fact that that she was unable to get a very strengthening diet.

Medical Societies.

BRITISH GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens —Adjourned Discussion on Difficulties in the Use of the Curette.

A MEETING of this society was held on July 11th, Dr. CLEMENT GODSON, President, being in the chair.

Dr. PURCELL showed three specimens of Carcinoma of the Uterus, removed by Vaginal Hysterectomy. In two of the cases amputation of the cervix had been performed two months and eight months previously, respectively. All three cases recovered from the operation. The first showed signs of recurrence in the vaginal roof six months later. The other two, done more recently, were so far free from recurrence.—The PRESIDENT, Dr. MACNAUGHTON-JONES, and Dr. BANTOCK held that these cases illustrated the futility of amputation of the cervix for malignant disease as a rule, though they had had cases which remained free from recurrence for eight years (Dr. Bantock's case) and for twelve years (the President's case).

Dr. BANTOCK showed three specimens: (1) Large Pedunculated Myoma of the Uterus, with Twisted Pedicle (the tumour was found by microscopic examination to be fibro-sarcoma); (2) Pyosalpinx, with Fibroid Tumour (in both these cases hysterectomy had to be performed); (3) Par-ovarian and Large Ovarian Cysts on the same side.

Mr. H. BELLAMY GARDNER resumed the adjourned discussion on Dr. Fancourt Barnes's paper on Some Difficulties in the Use of the Curette. He had seen the operation performed fifty-seven times by twelve operators in the theatres of two London hospitals. He submitted the following points: (1) the cervix was best held by two volsella on each lip, to equalise the traction; (2) dilatation was facilitated by immersion of the dilators in very hot water; (3) hollow metallic dilators, wedge-shaped in longitudinal section were the best; (4) the best curette was the sharp-edged, spoon-shaped flushing curette; (5) after curetting the cavity should be swabbed out with iodised phenol, an iodoform pencil placed in the uterus, and the vagina packed with iodoform gauze; (6) the scrapings should be examined microscopically.—Dr. ROUTH, while thinking that tents were too much neglected, was glad to hear the sponge tent condemned. Even laminaria tents were not always safe unless properly prepared, and so he always prepared his own. If the os was small it was better to wait till the menstrual period, when some degree of dilatation occurred; and if the uterus was hard it could be softened by placing glycerine tampons in the vagina. It was not always necessary to dilate fully; the greater the dilatation the greater was the risk of perforation. He advised curetting for disease of the appendages, whereby the need for their removal was often obviated.—Dr. HEYWOOD SMITH remarked that the finger-nail was not much use for curetting, except in obstetrical cases, because of the difficulty in bending the finger inside the ordinary uterine cavity. The best curette was Bell's "dredge" curette or Jessett's modification of it; it ensured the complete removal of all the diseased tissues. By using tents first and metallic dilators afterwards, the risk of tearing was diminished. When there was inflammatory disease of the appendages it was safer to defer curetting till the inflammation had subsided.—Dr. MACNAUGHTON JONES said that he had heard nothing new on the subject of curettage in this debate, which had diverged rather into one on dilatation of the uterus than on curettage. Some views advanced on the last evening were certainly startling to any modern gynæcologist. Fifteen years' use of the curette had not, in a single instance, given him an untoward result. The adoption of strict antiseptic precautions before, during, and after operation; securing and maintaining sufficient dilatation of the cervical canal and suiting the use and action of the curette to the particular case requiring it, were the main points to attend to. Certain inflammatory states of the peritoneum and the adnexa were clear contra indications. The best means of dilating the uterus up to a certain point was the laminaria tent of sufficient length and calibre, assisted finally, if necessary, by uterine dilators, as it might often be needful to explore the uterine cavity with the finger. This we might not be able to do if the uterus were fixed and high up in the pelvis. The particular curette selected should depend as to shape and size upon the special action demanded of it. Much larger ones were occasionally used than those referred to. Chromic acid, in various strengths according to the case, was an admirable application after curettage. He invariably used iodoform gauze to carry into the uterus where there had been suppurative endometritis, tamponing the vagina with the same. Contrary to the practice of some, after the first forty-eight hours he replaced the iodoform roll, cleansing out the uterus before doing so with an antiseptic solution, daily. He believed the mischief arising from tents to be mainly attributable to their being left too long in the uterus. If tents of different sizes were used, dilatation under any circumstances was comparatively an easy and harmless process. If the curette were pushed through a friable uterus, or used where it should not be, a death followed, then the fault was not in currettage. It had given him splendid results in cases of suppurative endometritis, plastic and granular endometritis, and in adenomatous growths from the endometrium. Dr. BANTOCK agreed that it was impossible to curette without previous dilatation. He left the tent in till it came away easily, for he thought it did less harm to leave one in for twenty-four or forty-eight hours than to change it every twelve hours. Sponge tents were safe if properly prepared; their action was gentle, and in cases of fungous endometritis the granulations got caught in the meshes of the sponge, and came away when it was withdrawn. — Dr. FANCOURT BARNES said, in reply, that when he heard of curetting being done without dilatation he could only assume that the curetting had not been done at all. He had hoped to hear something said about drainage; he thought that for this purpose an iodoform pencil answered better than iodoform gauze. He was glad that his condemnation of sponge tents was in the main endorsed by the Fellows.

Reviews and Notices of Books.

Medical Partnerships, Transfers, and Assistantships. By WILLIAM BARNARD, M.A., LL.B., Barrister-at-Law, and G. BERTRAM STOCKER, Managing Director of the Scholastic, Clerical, and Medical Association, Limited. London: Stevens and Sons, Limited. 1895.

EVERY Englishman is legally presumed to be instructed in the laws of his country, and therefore there can be no harm in a medical practitioner, whether about to purchase a practice or a partnership or to engage an assistant or be engaged as such, becoming to a certain extent acquainted with the statutes and decisions applying to his transactions and the disputes resultant therefrom. Every medical practitioner also has, before duly qualifying as such, been brought into contact with a certain number of those who have been able to inform him of the difficulties which may surround his future career. Still, he may like to see the advice he has been offered imparted with the authority which print commands, and marshalled in an orderly manner. Hence the perusal of the volume produced by Messrs. Barnard and Stocker by anyone about to enter upon any of the enterprises suggested in the title will repay the trouble taken, as long as the reader bears in mind that no book can do more than occasionally prompt or supplement the recommendations of good sense or experience in practical matters; while in matters legal, directly any complication or difficulty has arisen, the best legal advice should promptly be sought and acted upon.

Mr. Stocker, as the managing director of the Scholastic, Clerical, and Medical Association, has acquired experience of the points which have to be considered from a practical point of view by those for whom he is in the habit of acting. From a practical point of view accordingly he contributes the first part of the book, setting-out draft forms of (1) articles of partnership; (2) a deed for the assignment of a practice; and (3) an agreement between a medical man and his assistant, with comments thereon, prefacing his contribution with a chapter on the valuing of practices, and concluding it with a few words on the system of entering an agreement for an assistantship with a view to becoming a partner. Such

agreements as those last referred to Mr. Stocker unhesitatingly condemns, apparently on the ground that they frequently do not result in partnerships; but whether those who have been enabled by them to avoid an association which would have been distasteful or objectionable would view the matter in the same light is doubtful. But throughout the book Mr. Stocker is particularly careful of the wants of the beginner, probably holding that it is those whose experience is necessarily *nil* who are most likely to turn appreciatively to him for guidance. To them he is careful to supply every possible hint, giving an exhaustive list of matters for which money must be reserved in addition to the premium paid for the practice, as well as much sound advice.

Of the second half of the book we are almost inclined to say that there is not quite enough law in it for a lawyer and rather too much for anyone else. The Partnership Act of 1890 is set out, with notes on sections likely to affect medical men, and chapters follow on Goodwill and Restrictions on Practice, with an appendix of Cases on Restrictive Covenants; on Introduction to Patients; and on Assistants. No doubt of the cases which come before the courts a great number are those in which points of law as to the legality of a restrictive covenant arise, but it is open to doubt whether a medical man, having realised that such restrictions must be "reasonable in reference to the interests of the parties concerned and reasonable in reference to the interests of the public," either need or could be expected to wade through the numerous cases cited in an abridged form or otherwise referred to, while a lawyer either settling a covenant or certainly when advising on a dispute concerning one would require the authorities themselves. A fuller knowledge of the law relating to a particular subject and the principles governing it is sometimes gained by reading an exhaustive judgment, which criticises and compares all previous decisions, than by studying brief accounts of them isolated from one another. For instance, the elaborate judgment of Mr. Justice Hawkins in Robb *v.* Green, now confirmed on appeal, though presumably too recently delivered to be included, would have contained pretty nearly all that could be said as to a servant who makes wrongful use of information derived from the fiduciary position in which he finds himself. But, again, such a case is only in a measure practically applicable to medical matters, and in that and many others it is not easy for anyone not a lawyer to advise himself. In practical matters it is best for the medical man to use every means possible by judicious enquiry and otherwise to insure that his partnership or practice may if possible be purchased from a man of honour and integrity, and that no mistake on his own part may jeopardise his future peace of mind; while if he gets into a dispute and legal process seems inevitable, the sooner he refers the matter to a capable lawyer the better it will be for him. To deal with it by himself with the aid of the best text-book in the world will be only a shade less risky than for a lawyer to perform on himself a comparatively easy operation after borrowing a set of instruments and a manual of operative surgery.

With regard, however, particularly to Mr. Stocker's share of the book and the draft agreements which he gives, one thing must be borne in mind. It is of no use to go to a solicitor, who perhaps has never before drafted a deed disposing of a medical practice or a share of it, and to expect him to foresee all the contingencies which may arise and to guard against them. Nor, as has been suggested, can a medical practitioner always recall all that experience should teach him; hence it is not difficult to predict that Mr. Stocker's forms may often prove extremely useful as a foundation to work upon; while the whole of the book should be of service to country practitioners in the legal profession who have not large libraries to consult.

Allgemeine Physiologie: ein Grundriss der Lehre von Leben. Von MAX VERWORN, Dr. Med. et Phil., *Privat-docent* der Physiologie an der Medicinischen Facultät der Universität Jena. Mit 270 Abbildungen. Jena: Verlag von Gustav Fischer. 1895. (General Physiology: an Outline of the Science of Life. By MAX VERWORN, M.D., Ph.D., Tutor in Physiology at the Medical Faculty of the University of Jena. With 270 illustrations. Jena: Gustav Fischer. 1895.)

THIS is a work which we venture to think will attract widespread attention. Its author has already made some contributions to the study of vital phenomena amongst the lowest forms of organisms, but in the present volume he has done what has, we believe, not hitherto been attempted, that is, to analyse the aims and methods of physiology, and to contribute to the solution of the great problem that underlies it—the nature and meaning of life. It is a task for which few are fitted, for it demands a knowledge of natural science as well as a grasp of philosophic doctrine rarely to be found in unison. To ourselves the book has come as a revelation, not only from the depth of reasoning and the command of facts garnered from all sides that it exhibits, but for the lucidity with which the subject is marshalled and the wide knowledge that is herein displayed. That we are justified in this appreciation will become evident as we unfold the plan of the work. Its dedication to the memory of Johannes Müller, the founder of modern physiology, implies something more than a tribute to the life-work of that illustrious man. The author desires to recall the lines of modern physiological research to the sphere which Müller opened up, but which has been somewhat neglected in the highly specialised search after new facts in the intricate mazes of "advanced" physiology. Müller rightly appreciated the truth that physiology—the science of life and of living things—must embrace in its purview research into the conditions of existence in all organisms, that comparative physiology had as much to teach as human physiology as regards life itself. The complex manifestations of the activities of the living body, as witnessed in the highest scale of animal life, can be reduced to a few simple properties of living matter in the lowest organisms, and the secret of life which is concealed in the complex inter-actions of muscle and nerve may be found more readily in the properties of elementary protoplasm.

What is life? The answer to that question, which necessarily stands at the root of all physiological research, has not been invariably the same. Primitive man—nay, even the cultured Greeks and Romans—conceived the wind and storm, the rivers and seas, to be living, or the expression of the will of living beings—doubtless influenced in the thought by the association of movement with vital manifestations. But we know that motion is not essential to life; that death may be simulated by cessation of activities and yet life still be present; the dried seed contains within it potential life, which springs into activity when subjected to favourable conditions; and if the view be extended to microscopic objects, it is asked, how can one distinguish between the spores of torula and the oil-globules in milk—passive as they both are—whereas the minute lime crystals from the abdominal sacs of the frog, viewed under the microscope, are seen in constant movement? It is the first duty of physiology to determine the dividing line between the living and the lifeless in nature. The aim of research is the discovery of the causes of phenomena—to satisfy what Dr. Verwom terms the "craving for causality" (causalitäts bedurfniss)—a craving which is never satisfied! In the inorganic world we speak of "matter" and of the "atoms" into which it is decomposed, without, however, being able to prove, but only to infer their existence. In the like endeavour to explain vital phenomena we are met with the apparent contradiction of psychical manifestations side by side with corporal, and even when they can be brought into the same

causal relationship—and referred to the motion of matter—the problem of life is no nearer a solution. The author in an interesting review shows how physiological ideas and inquiries have progressed from antiquity through the age of Galen, of Harvey, of Haller, and Johannes Müller. In a few passages he sums up the gains to knowledge already obtained by the labours of physiologists, and shows how in every department of the functions of the body crucial questions have received no answer. Then—speaking of the relations of psychology to physiology—the question of the limits placed to natural knowledge is discussed, how we cannot explain "consciousness" in terms of matter; how, indeed, the riddle of matter and force is well-nigh insoluble, so that, as Du Bois Reymond said, the motto of natural science in this regard should not be "ignoramus," but rather, for all time, "ignorabimus." Passing this matter the author touches on the relationship between the material world and the Psyche, and it is interesting to find him practically adopting the Berkleyan philosophy, in the statement that the outer world exists only in our consciousness, may, even that one's own individuality—the ego—forms but part of the general conception of external things. In other words, the author declares himself a "monist"—i.e., psychical rather than materialistic. From metaphysics he passes to consider the doctrine of "vitalism," and thence to the demonstration that in cellular physiology alone can we hope to solve the riddle of life. He says (page 56): "In physiology we must continually revert to the standpoint which made the researches of our great master, Johannes Müller, so fruitful. During his whole life Johannes Müller advocated practically and theoretically the view that there is no *one* physiological method, but that every method is right which leads to the goal. He chose his method according to the problem before him, never adapting the problem to the method. It is not the method which is uniform is physiology, but the problem. For the solution of this problem physiology must employ in equal share chemical and physical, anatomical and developmental, zoological and botanical, mathematical and philosophical methods of research, according as it fulfils the special aim. But all should lead to one goal—to the investigation of life."

The words just cited form the closing sentences of the first chapter of the work. In the succeeding five chapters there are treated in turn: the Living Substance, Elementary Phenomena of Life, General Conditions of Life, Stimuli and their Action, and the Mechanism of Life. These topics form the bulk of the book, and are treated in a manner at once systematic and philosophical. Living matter as now existing on the earth is only to be met with in the form of *cells*, either isolated or connected to form a compound organism. The substance of the cell is a viscous mass—protoplasm—investing a nucleus. Chemically, the materials of which living matter is composed form but a small number of the elements found in the inorganic world, but variously combined, some of these compounds—e.g., albumins—being limited to organic beings and not existing as such in non-living substances; and other compounds, as carbohydrates, fats, and simpler materials, which are derived from the breaking up of albumins or aid in their formation; and lastly, salts and water, common to the inorganic world, the last named being essential to the fluidity of living matter and inseparably bound up with it. One by one Dr. Verwom discusses the criteria which have been raised to distinguish between living organisms and non-living matter, dismissing them all as inadequate, until he comes to the final characteristic of the formation of albumin and of its metabolism, peculiar and special to living things, and therefore the essential basis of physiological study.

The elementary phenomena of life are discussed under the heads of Metabolism (Stoffurdesel), Morphology (Formurdesel), Dynamics (Kraft-urdesel), and constitute Chapter III. Here, as elsewhere, abundant illustrations are drawn from the animal and vegetable world, especially from the lowest forms of life, showing how the same factors are at work through all the vital processes. Metabolism consists in the processes which underlie what we term nutrition, the increasing formation and destruction of albuminous compounds. Morphology embraces a wide purview. It is concerned with those structural alterations which are seen on the large scale in the building up of specific characters, the acquirement and transmission of some and the gradual loss of others, according to the law of natural selection. It involves also those form-changes which are seen in the individual and the process of growth and reproduction. It is shown how the truth of Harvey's dictum, "Omne vivum ex ovo," is retained in the truer conception of "Omnis cellula e cellulâ," modern research showing that the union of germ-cell and sperm-cell there is a complete fusion of "protoplasm with protoplasm," of "nucleus with nucleus," of "centrosom with centrosom," prior to the segmentation that issues in the cellular basis of the future being. As regards what we have termed "dynamics," literally changes of "energy," it is shown that the production of motion, of light, of heat, and of electricity can be referred to chemical changes, and that in point of fact these, as all other of the "vital" phenomena, are owing to the continued metabolism of living matter. The next chapter, on the General Conditions of Life, opens up some highly interesting speculations. After showing the dependence of life upon its environment the question is raised whether under other conditions than those known to us life could exist, and this raises the problems of the origin of life on the earth and of its future destiny. There are many who, whilst denying the possibility of spontaneous generation in the present order of things, are fain to confess that there is no other satisfactory explanation for the origin of life on the globe than this—that when the molten mass had sufficiently cooled, and water—an essential of life—with other conditions suitable to the existence of living matter, appeared on the earth's crust, there was developed out of the inorganic materials the primal substance in which life was manifested. Haeckel, the protagonist of evolution, is fain to admit this; indeed, he sees no other way out of the dilemma. According to him the structureless primitive monera-mass of albuminous substance must have been formed in the primal seas, the birthplace of organic life. This hypothesis is, however, only one of many to explain the riddle of existence. Opposed to it is the theory of "cosmozoa," which was favoured by Helmholtz and W. Thomson, and assumes that in some way—possibly through meteorites—the earth received some of the living substance which gave rise to its varied and abundant fauna and flora. On this view the beginning of life on the earth would be only one incident in the life pervading the universe. Again, Professor Preyer, who is not satisfied with either of these theories, for he does not see why if spontaneous generation once occurred it should not continue to be manifested, and who sees no solution to the problem of life in the cosmozoic view, argues that living matter *preceded* lifeless, and that the molten globe contained it, although in different form from the protoplasm of to-day. This theory brings us back to primal conceptions, for it endows with life the great earth-mass itself. Lastly is mentioned the conception of Pflüger, who finds in the radical CN the primal basis of living matter. These theories are criticised by the author, who sums up the argument (p. 319) by declaring that Life is a "function" of the earth's development in a mathematical sense; that living matter could not exist so long as the earth was a fiery fluid globe without a firm crust; but that it *must* have arisen inevitably from chemical changes when the conditions became suitable, and that it must change its form and composition as the external

conditions alter in the history of the earth. So that the formation of living matter from "earth-matter" was just as necessary a part of the development of the earth as was the formation of water. From these speculations he closes the chapter with a discussion of death, dealing first with necrobiosis and then with the causes of death, and concluding that as in past æons the earth could not sustain life, so in æons to come it will pass into the state of a dead world once more unable to be the habitat of any living thing. Of the remaining chapters—those on Stimuli and on the Mechanism of Life—we have no space to speak. Needless to say that they abound in suggestive statements and apt examples, derived from the study of the lower organisms. To do full justice to these topics would require lengthy treatment; but their perusal, and, indeed, the whole presentation of the subject, cannot fail to arouse interest and thought. It is to be hoped that this work will be translated into English. It is not a text-book, but rather a valuable and scholarly exposition of the teachings of science, not of biology merely, but of cell physiology, which is not only fascinating in itself, but of abiding interest in the light it sheds on ever-present problems.

Diseases of the Kidneys and Urinary Organs. Vol. I. By Dr. FÜRBRINGER. Translated by W. H. GILBERT, M.D., with commendatory letter from Sir Thomas Grainger Stewart, M.D. London: H. K. Lewis. 1895.

THIS is a valuable work on the diseases of the kidneys, and evidently represents a very large amount of practical and literary research considering the enormous number of authorities which are quoted. The book is divided into two parts. The first part deals with the more general symptoms of renal disease, and includes chapters on the presence of albumen, blood or hæmoglobin, and casts in the urine, and also on dropsy and uræmia; the second part deals with the circulatory, inflammatory, and degeneratory forms of renal disease in their more particular aspects. In dealing with "physiological albuminuria" and discussing the clinical value of minute traces of albumen, discovered only by very delicate tests, the practical side of the book is well brought out by the following sentence: "Practitioners should adopt as much as possible the old and reliable procedures of testing for albumen, should not trouble themselves about small unimportant hazes but should only reckon with decided deposits, which even at first sight show their importance." In the second part the inflammatory processes are all classed under the head of "Diffuse Nephritis," it being understood that the term does not mean an equal distribution of the process all through the kidney, which probably never occurs. This class is then subdivided into (1) acute diffused nephritis (corresponding to acute desquamative nephritis of Johnson and including the catarrhal or croupous forms of many German authors), (2) chronic diffused nephritis (corresponding to Wilks's large white kidney and Johnson's non-desquamative form), and (3) contracted kidney including all kinds of diffuse nephritis which have the following characteristics—(*a*) contraction of renal elements, (*b*) special clinical course, and (*c*) slow insidious development. The book is very nicely got up and pleasant to read; its views are wide, and if some differ from generally accepted ideas, they make the book the more interesting by the larger field of thought they set before us.

St. John's, Clerkenwell. By JOHN UNDERHILL. With etched plates and other illustrations by WILLIAM MONK, R.P.E. London: Cadbury Jones and Co. 1895.

AMONG the advantages which the world at large has derived from the improvements in the art of pictorial illustration, none is more conspicuous than the preservation of those antique buildings, interesting both in their architecture and associations, which are scattered up and down the old streets and out-of-the-way nooks of London. The photogravure or the burin of the etcher fulfils the condition which the Latin poet desired when he wrote of a monument more lasting than brass, and perpetuates for future generations the semblance of places no longer existing. The enterprise of Messrs. Cadbury Jones and Co. has done this good office for one of the most remarkable of our London antiquities in the very artistic volume, dedicated to the Grand Priory of the Order of the Hospital of St. John, which contains the etchings of Mr. Monk and the descriptive letterpress of Mr. Underhill. The last-named gentleman has told the history of the English branch of the great confraternity of the Hospitallers simply, concisely, and with a generous appreciation of their work both in ancient times and in the present day, while the views of the gatehouse, the church, and the other fragments of the once magnificent Priory now spared to us cannot fail to excite the admiration of lovers of picturesque antiquity, as well as of those who rejoice to see nineteenth century science and beneficence housed in the traditionary abodes of the monastic almoners of the ages of chivalry. Very appropriately have the publishers of this interesting book of remembrance included among their views one which, from its very remoteness in point of date and locality, brings out in conspicuous relief the perennial activity and far-reaching scope of the hospitaller energy. The modern walls of the Ophthalmic Hospice at Jerusalem are a standing witness that, though change and decay may obliterate the external landmarks of chivalric charity, the spirit which once raised these crumbling relics of hoary eld is vital yet; and that men like the late Sir Edmund Lechmere could translate into the formulas of latter-day benevolence the antiquated obligations of the monastic rule and carry the spirit of the crusader, without its intolerance, into the very cradle of the Ancient Order of St. John.

General Surgery and Pathology for Dentists. By EDMUND W. ROUGHTON. With numerous original illustrations. London: J. P. Segg and Co.; Philadelphia, U.S.A.: S. S. White, Dental Manufacturing Co. Pp. 134.

THE value of a manual of this character from an educational point of view is very questionable. Whatever part of medicine is practised as a speciality, be it the eye, the ear, or the teeth, a thorough knowledge of general pathology is requisite and should be obtained from some standard work, while the more minute knowledge of the speciality practised should be gained from books specially dealing with these subjects. We therefore fail to appreciate the title of this book — namely, "General Surgery and Pathology for Dentists." But outside these considerations the matter is insufficient for the wants of the examination in surgery required of candidates for the dental diploma. The author, however, states that it is his hope that the book will save the expense of purchasing a large work on surgery, but we feel that any dental student who trusts solely to the information contained in this book will regret having done so. As examples of this insufficiency of matter we may point out that gangrene receives a page the type of which is well leaded. The discussion of such important subjects as septicæmia and pyæmia occupies scarcely two pages. The style of the author is clear, and the only valuable use to which the volume can be put is for refreshing the memory just previously to examination.

LIBRARY TABLE.

Handbuch der Physiologischer Optik. Von H. v. HELMHOLTZ. 2te Auflage. II. Lieferung. (*Handbook of Physiological Optics.* By H. v. HELMHOLTZ. Second Edition. Part 2.) Hamburg und Leipzig: Leopold Voss.—This part deals first with the determination of distance, in

regard to which it is shown that if we attempt to determine distance by the convergence of the visual lines the distance is habitually under-estimated. Then the conditions for seeing vertical lines are considered, those lines being seen vertical to the visual plane that depict themselves upon the meridians of the eye which in the median position of the eye would be actually vertical to the visual plane. In the next place the rules of stereoscopic projection are given and the various forms of the stereoscope are described. Professor Helmholtz has nothing new to tell in regard to the cases of incongruence of the retinæ, and we are still referred back to the old observations of v. Gräfe and of Donders, who are supposed to have proved that many cases of strabismus with single vision occur—a subject that certainly requires further evidence for its support. The difficult topic of the horopter is next discussed, and finally the question of the fusion of double images.

Mercantile Speller: containing the Correct Ways of Spelling Words used in Correspondence. London: R. J. Bush. 1895.—This work is much more comprehensive than the older class of spelling books, among which Butter's was perhaps the most familiarly known. No doubt it will be useful to a large section of the writing community, but its value might have been increased by some indication of the preferable or more usual forms in those cases where a large number of alternatives are provided. For instance, nine different spellings are given for the word signifying an Asiatic sabre, all being apparently of equal correctness and varying from "cymetar" to "simitar." "Hallelujah" and "mistletoe" afford similar instances. It is true that these particular words will seldom be required in even the most extensive mercantile correspondence; but the reader encounters some of far less frequent occurrence and of uncertain signification. A few such taken at random are vambrace, vanfoss, vessicnon or vessignon, virose, vug or vugg or vugh or vogle, vughy, wangee or wanghee or whangee or whanghee, whapper or whopper, &c.

Nuova Antologia: Rivista di Scienze, Lettere, ed Arti. Anno xxx., vol. lvii., fascicolo xii. (*New Anthology: Review of Science, Literature, and Art.* Thirtieth Year, vol. lvii., No. xii.) (June 15th, 1895.) Rome. 1895.—This, the last instalment of a periodical which is to the Italian what the *Revue de Deux Mondes* is to the French reading world, maintains the character it has long established for science at once sound and versatile, and for literature at once masculine and elegant. Certainly the student in quest of a model of the most refined contemporary Italian style could not do better than familiarise himself with its successive *fascicoli*. For the medical public it has the honourable distinction, shared in rather less degree by its French counterpart, of giving prominence to biological, hygienic, and even clinical subjects. To its pages we owe many fine monographs on epoch-making physicians, surgeons, anatomists, and physiologists, conspicuous among such contributions being the *éloge* on Karl Ludwig by Professor Mosso, lately noticed in THE LANCET.[1] To those of the profession whose mental equipment includes a working knowledge of Italian we can confidently recommend the present instalment, not only for Professor Mosso's beautiful and touching tribute to his master, but for the other articles on themes of perennial interest in education, literature proper, and theology. The history of "University Reform in France from the Revolution to the Present Day," by Signor Carlo F. Ferraris, Professor of Statistics in the School of Padua, is well worthy of careful perusal.

Laboratory Guide for the Bacteriologist. By LANGDON FROTHINGHAM, M.D.V. Assistant in Bacteriology and Veterinary Science, Sheffield Scientific School, Yale University. Philadelphia: W. B. Saunders. 1895.—This small work can scarcely be spoken of as a laboratory guide. It is rather a series of notes, somewhat disconnected in character, made in the laboratory. The author states that the technical methods are specially intended for convenience in laboratory work and that they are now given to enable the laboratory worker to avoid long search through various text-books in which these methods are published. We are afraid, however, that except for the most elementary students these methods are already described in most of the earlier text-books which are now at the disposal of most laboratory workers. The methods that are given are good ones, and some of the practical details may be of use to laboratory workers; but the book, taken altogether as a guide to laboratory work, is far from being complete. On the one hand, it could not take the place of the teacher, whilst on the other it would scarcely supplement his teaching in more than a few details. For these few details, however, we may recommend the little work to those who are already able to utilise them.

Index to the First Fifty Volumes of "The Practitioner, a Journal of Therapeutics and Public Health." London: Macmillan and Co. 1894.—Fifty volumes of the *Practitioner* form a great storehouse of information relating to most departments of medical knowledge, and this copious index is a means of referring to their varied contents, which a large circle of readers will cordially welcome. In turning over the pages the reader cannot help observing how the progressive character of medical science is evidenced by the frequent occurrence of words and expressions which were in very slight request when the journal was established in 1868. The first mention of chloral, for instance, is in vol. iv., of bacteria in vol. ix., of salicylic acid in vol. xiv., of cholecystotomy in vol. xxi., of acromegaly in vol. xlii., of nephro-lithotomy in vol. xlvi., and of thyroid extract as a remedy for myxœdema in vol. xlix. A somewhat puzzling feature is the indexing of the same author under separate but successive headings, sometimes without obvious motive and sometimes apparently only because he has in course of time acquired additional qualifications and titles—for instance, the late Dr. Murchison is entered once as "Murchison (Dr. C.)," and again as "Murchison (Dr., LL.D., F.R.S.)." Similar instances may be found under Gairdner (W. T.), Murphy (Shirley F.), Napier (A. D. L.), Nettleship (Edward), Noel Paton (D.), Pick (Professor), &c. A useful addition would have been mutual cross-references to synonyms lying some distance apart, such as Carbolic Acid and Phenol, Lead-poisoning and Saturnine Poisoning, Phimosis and Phymosis, &c.

Vital Statistics of Boston and Philadelphia, covering a period of six years ending May 31st, 1890. By JOHN S. BILLINGS, M.D., Deputy-Surgeon-General, U.S. Army. Washington, D.C.: Government Printing Office. 1895.—This volume of 269 large pages is one of the publications of the United States Census Office, and presents with great fulness and minuteness of detail the vital statistics of the two cities named, containing respectively populations of 448,477 and 1,046,964. A prefatory letter, addressed to the Secretary of the Interior, states that "this report presents a number of features which are new in the line of census work, such as the sub-division of the cities into sanitary districts and the analyzation of the effect of immediate surroundings of stated conditions upon the death rates of different races and classes of people." Twelve coloured double-page maps, six for each of the cities, are a special feature of the work, which deserves, and will no doubt receive, the close attention of sanitarians and statisticians.

[1] THE LANCET, June 29th, 1895.

New Inventions.

IMPROVED ARTERY FORCEPS.

ONE defect of nearly every pair of artery forceps is the smoothness of the handles for quite half their length. In the operation of tying an artery it is expedient that the assistant's finger and thumb holding the forceps should be as far from the wound as possible, so as not to be in the way and in the light; but it is not particularly easy to hold on to the smooth end of the forceps, and if the grasp be on the roughened portion further down there is a considerable chance of loosing the catch. Also artery forceps make admirable tenacula for small tumours and the like; here, again, the further the pull the easier the work. So I have had the accompanying artery forceps made to my design by Messrs. Arnold and Son, having the sides roughened for about three-quarters of their length, and so affording an excellent hold.

E. MANSEL SYMPSON, M.D.,
Surgeon, Lincoln County Hospital.

A SELF-LIGHTING GAS-BURNER.

ALTHOUGH the principle upon which the working of this attractive device depends has long been known, yet it has not until now been successfully applied in practice to the automatic lighting of gas. So far back as 1823 Döbereiner observed that when a current of hydrogen impinged upon that peculiar variety of platinum known as platinum black, or spongy platinum, heat was developed until the intensity of it was such as to cause the platinum to glow and eventually to ignite the hydrogen. Döbereiner constructed a lamp which consisted essentially of a hydrogen generator (zinc and sulphuric acid being employed for this purpose), provided with a jet from which the generated hydrogen issued upon a small cage containing spongy platinum. The explanation of this peculiar phenomenon is simply that platinum has the power of absorbing or "occluding" hydrogen and other combustible gases as well as the oxygen of the air within its pores, and bringing them into such intimate contact that union results. In short, combustion ensues and the platinum glows. Perfectly clean and chemically pure platinum effects the same thing, but it does not appear so active and reliable as the spongy variety. Even the latter fails from some cause or other now and again. To Mr. Duke, however, of 20, High Holborn, W.C., belongs the credit, so far as we have experimented, of overcoming this uncertainty. How this has been achieved we do not know precisely, but we are told that the self-lighting burner bearing his name was the result of several years' study, and, we may add, his labours have been rewarded with apparent success judging from the satisfactory results we have obtained with the new self-lighting burner recently examined. Its construction is simple enough. An ordinary batswing burner, provided with a governor, has soldered on the side of it a small brass rod, on the top of which is a cap of black spongy material, presumably platinum. From the apex of this cap projects a thin platinum wire in the direction and on a plane with the base of the flame. On turning on the gas a current, which forms the blue part of the flame when ignited, impinges directly on the metallic spongy mass, with the result that it soon begins to glow, heating the platinum wire to a bright red heat, which then ignites the escaping gas, the whole action being completed in the tests we have made in less than eight seconds. The convenience of such a device hardly needs emphasising. It is no small advantage of the electric light that it can be turned on by merely "switching" and without resorting to the use of matches. The little platinum automatic igniting torch which Mr. Duke has perfected would seem now to offer the same advantages in gas lighting. It will prove most useful where light is wanted in emergency, as in the sick room, while it dispenses with keeping a small jet constantly burning, the accidental extinction of which, as by a draught, may involve risks not only of coal-gas poisoning, but also of explosion. If it were possible to apply it this invention would obviously be a most valuable adjunct to gas fires.

HARTMANN'S HYGIENIC TOWELETTES.

THESE towelettes, also known as wood-wool diapers for ladies, have been for many years so favourably received that a detailed description is hardly necessary. The absorbent pad is very light and soft, closely resembling cotton wool, and is enclosed in coarse gauze, the ends of which are long, for the convenience of fastening. This material readily takes up fluids of the consistence usual in discharges, being comparatively free from the disagreeable tendency to become coated with them superficially. Towelettes which have served their purpose are burnt. They are of various qualities and prices, from a shilling per dozen upwards, the most substantial form being intended for use after accouchement. The manufacturers have adapted their wood-wool to several other purposes of a similar nature, such as infants' napkins and sheets for use during accouchement. These last are in three sizes, the largest being thirty-two inches square; in addition to being soft, comfortable, and inexpensive they absorb the discharges completely and are burned after use, thereby reducing the chances of septic infection. The office of the company is at 26, Thavies-inn, Holborn-circus. Another of their appliances for ladies' use is a stocking suspender, which serves also as a support for the towelettes.

A CABINET FOR PLASTERS AND DRESSINGS.

MESSRS. FERRIS AND CO. of Bristol have forwarded to us a wooden cabinet, about 18 in. long by 13 in. in height and 11 in. in breadth, which is divided into thirteen compartments, each of which contains one of their "ever-ready caddies." The caddy is an ingenious device for keeping in order plasters and other surgical dressings which the busy practitioner is constantly using. Each dressing is wound upon a hollow cylinder, which fixes upon a metal axis running through the middle of the caddy, the caddy itself being an oblong tin box, and when required the dressing can be pulled from its reel and the quantity needed cut off. At the end of the caddy is a metal slide, on which is distinctly printed the name of the dressing contained in the box. The caddy is refilled by removing the label slide and taking out the metal axis, which is put through the new roll of dressing, fixed in position in the caddy, and the label slide replaced. The cabinet is a handsome piece of furniture and will be found a useful addition to the fixtures either of the private surgery, or the public dispensary, or out-patient department.

OZANITE SANITARY RINGS.

THESE consist really of large wafers of vegetable parchment containing a definite quantity of pure permanganate of potassium, which, being crystalline, diffuses slowly out when the ring is floated on water. One advantage of such an arrangement is that the purity and strength of the permanganate is ensured. The ring is obviously convenient and useful for a variety of purposes, while it may be used with confidence for the delicate requirements of a gargle or as an application for cuts and wounds since the materials are quite pure and the paper free from injurious colouring substances. Meritorious as in many respects we concede this invention to be, we must enter a vigorous protest against the adoption of the name of a medical man in its title. "The Dr. Latham Ozanite Rings" is extremely objectionable, as our readers will agree.

THE LANCET.

LONDON: SATURDAY, JULY 27, 1895.

THE discussion of the midwives question by the profession continues and does not become less interesting. Two valuable contributions to it were made last week, one by the Edinburgh Obstetrical Society and the other by the Parliamentary Bills Committee of the British Medical Association. The general result of the discussions may be expressed in the two following propositions—firstly, that midwives are needed; and, secondly, that they should act in touch with some medical practitioner. This was the suggestion of Dr. CAMERON of Leeds: "There must be something incorporated in the Medical Acts [rather, we should say, the Midwives Bill] which made it necessary for midwives attending cases being in touch with some qualified practitioner." The whole gist of the demand of the profession should be comprised in these two propositions. At neither of the meetings we refer to did any medical man argue that there was no evil to be remedied, and that the Mrs. GAMPS might be left to a process of slow and gradual extinction. In the Parliamentary Bills Committee of the British Medical Association it transpired that an amended Bill had been prepared by a subcommittee, which is being circulated among the branches. Dr. WOODCOCK of Manchester and Dr. SOMERVILLE of Galashiels spoke in favour of delay and postponement. This is reasonable enough if a definite amended Bill has been presented for consideration; otherwise it is not so. The case, whether simple or complicated, has been before the profession for twenty years. The suffering and the perils of labour go on. Women destitute of the most primary knowledge of the risks of a lying-in chamber or the lying-in condition continue to practise. According to Dr. D. BERRY HART midwives, wholly or almost wholly untrained, attend about half of all the cases. In these circumstances the question should be definitely settled. If the present arrangements are the best possible, by all means let them alone. But if they are not, indefinite delay is unworthy of the medical profession. The Committee alluded to above has so far yielded to the plea for postponing the consideration of the subject, but not before the following resolution, proposed by Dr. BRIDGWATER and seconded by Dr. GALTON, was unanimously passed:—

"That it is desirable that there should be a change in the present system in the practice of midwifery by unregulated, unrestricted, and uneducated women."

The debate in the Edinburgh Obstetrical Society deserves further notice. It was opened by Dr. D. BERRY HART, who remarked on the numbers of ignorant women who attended labours, and advised a compromise in the form of the registration of "midwifery nurses." Dr. BUIST of Dundee favoured the Bill. He would trust midwives if supervised. He had known midwives give opium for albuminuria and ergot during pregnancy. Registration would bring such conduct under notice and discipline. The aim of legislation should be to protect the poor. Dr. CONNELL of Peebles preferred "registered qualified nurses" to registered midwives. He thought it a matter of public health that the State should insure women against labour, doubtless meaning the risks of labour. One speaker said that the life of a country practitioner would be intolerable if there were no midwives. This remark was similar to one made by Mr. JONES MORRIS of Portmadoc at the other discussion, that it could be easily imagined how very convenient it would be for him in a hilly district to know of a woman in remote parts competent to attend cases of natural labour, and, if she found any difficulty, at once to send for a medical man.

Professor SIMPSON thought the creation of a special group of women a dangerous experiment, but considered that women trained for three months in a maternity hospital might be registered. It is not often that Sir WILLIAM TURNER and Dr. TUKE take part in a discussion of midwifery matters. They did good service on this occasion in saying that in an amended Bill, of which they had only seen a copy at the meeting, the restriction of the practice of midwives to cases of natural labour and the limitation of registration of existing midwives to those presenting certificates from a person of authority in the district—points insisted on by the General Medical Council—were omitted. This reading, however, is contradicted by Section 5 in Clause 12, p. 5. The point must be put beyond all doubt. The promoters of this Bill must know that any measure attempting to give midwives a *carte blanche* in midwifery as if they were medical practitioners would meet with the unanimous condemnation of the profession, and could have no chance of passing through Parliament. The discussion in Edinburgh was interesting with respect to the case of Scotland. Some speakers have said that Scotland had no need of midwives. This was a surprising statement to those who reflect on the scattered and sparse population of many parts of Scotland, and what must be the lot of parturient women there? Yet Dr. MACVIE of Berwickshire stated that midwives were unknown in his district. On the other hand, Mr. THATCHER, whose name is of some authority on midwifery in Scotland, on the strength of twenty years' experience as a teacher of nurses, considered that midwives were absolutely essential in Scotland for populous and large colliery districts. Dr. BARBOUR, by way of practical conclusion to the discussion, made some sensible remarks with regard to certain points which would have to be considered in the event of the Bill being extended to Scotland, a course which he seemed to think probable if legislation were once adopted in England.

We can best conclude our notice of these important discussions by commending them to those who are about to take part in what ought to be the larger discussion of the British Medical Association. The question should be raised out of all party and personal connexions. The profession must either attend all midwifery or consent to have part of it attended by midwives. It has the right to demand in the latter case that midwives shall act subordinately—in touch, as Dr. CAMERON says, with some medical practitioner; in short, that they shall be severely

restricted to cases of natural labour and liable to censure when they exceed their duties.

THE opinion of clinicians has for years inclined more and more to the view that it is impossible to explain pneumonia as a simple inflammation of the lungs. The abrupt onset, well-defined course, and definite crisis characteristic of the disease, the fact that the pulmonary lesion and the clinical phenomena do not run *pari passu*, the occasional occurrence of epidemics,—these and many other facts point to the conclusion that the true nosological relations of pneumonia are with the specific fevers rather than with the inflammations. Naturally, the cause of pneumonia has been sought for in a micro-organism. There is a certain analogy between the course of the pyrexia in pneumonia and in the various agues, and the discovery of LAVERAN, that the febrile period in ague is coincident with the life-history of the parasite of malaria, has a suggestive bearing on pneumonia. If it could be shown that a special micro-organism is always present in the pulmonary tissue or in the blood of patients suffering from pneumonia, and if it could be demonstrated that the life-history of this micro-organism is coincident with the pneumonic pyrexia, we should have an adequate and satisfactory explanation of the true pathology of the disease. It cannot be said, however, that we have yet obtained satisfactory evidence on these points. FRIEDLÄNDER first described diplococci present in the sputum of pneumonic patients, and these diplococci were encapsuled. Further inquiry, however, proved that these diplococci were by no means constant in the disease; that their presence was, in fact, the exception rather than the rule. Subsequently FRÄNKEL was able to differentiate another micro-organism—the pneumococcus—which he believes to be generally present. This pneumococcus is usually a diplococcus; the prevailing shape, according to Dr. WASHBOURN, is lanceolate, although the individual cocci may be rounded or oval or rod-shaped. They are variable in size and often form chains of four or five cocci, and even in some cases of as many as forty or fifty cocci. They are sometimes with and sometimes without a capsule. The pneumococcus of FRÄNKEL is stated by Dr. WASHBOURN to be capable of exciting pleurisy, empyema, meningitis, and otitis, as well as pneumonia, and it is sometimes present in the secretions from the mouth, nose, and bronchi of healthy individuals. As he points out, this last fact is no argument against the pathogenic *rôle* of the pneumococcus, as the same applies to the diphtheria bacillus, which has frequently been found in the throats of healthy individuals without producing any injurious effects. Mice and rabbits are the most susceptible animals to inoculation of the pneumococcus, guinea-pigs are much less susceptible, whilst pigeons and fowls appear to be immune. The course of the temperature following inoculations in the rabbit would appear to bear considerable resemblance to that of pneumonia in the human subject as regards the nature of the rise and the height attained, but the course of the case is very much more rapid. Thus death or recovery generally takes place within two days. The blood is found to be crowded with cocci within a few hours of the performance of the inoculations.

The true explanation and consequent value of these investigations is eminently a question for experts in bacteriology, and it must be admitted that at present bacteriologists are much divided on the subject. Pneumonia was long the battle-ground of therapeutists. At the present day it is almost as much the battle-ground of pathologists. It is not too much to hope, however, that ere long some consensus of opinion will be reached on this much controverted and very important point. Bacteriologists may be fairly asked to furnish us with definite knowledge as to whether a characteristic micro-organism is uniformly present in pneumonia, and, if so, whether its life history affords any clue to the phenomena of the disease. While this question remains in abeyance the treatment of pneumonia—always one of the most disputable and difficult in the whole range of medicine—becomes more difficult than ever. If the disease be truly parasitic, and if the destruction of the parasite be the true object of therapeutics, then it is evident that the antiphlogistic treatment of former days and the stimulating treatment of the present day are both alike mistaken and futile. Quinine was known to control ague long before the explanation of this fact—viz., that quinine is a germicide to the amœba of malaria—had been attained; but how much more satisfactory is the treatment of malarious affections now that the logical basis of the accepted treatment has been made clear.

As regards pneumonia we have no specific remedy, but it may be fairly enough argued that the bacillary theory of the disease, however problematical it may still remain, suggests the wisdom of caution in pushing either an antiphlogistic or a stimulant line of medication. The reasonable and moderate treatment of symptoms must commend itself to every judicious practitioner; but wholesale bleeding on the one hand, or drenching pneumonic patients with alcohol on the other, seems, in the light of recent researches, more indefensible than ever. Similarly the routine use of antipyretics seems bad practice. All the evidence at our command appears to show that, apart from hyperpyrexia, the height of the temperature bears no direct relation to the danger of the attack in pneumonia. At this point again the uncertainty overhanging the pathology of pneumonia is very embarrassing. Is the pyrexia the reaction of the organism to the action of a morbid substance—whether bacillary or not—in the blood? Is it simply the effect of such a poison, or is it the effort of the organism to rid itself of the poison? In other words, as Dr. HALE WHITE puts it, is the pyrexia one of the "defensive mechanisms" of the body? We cannot answer these questions with any confidence or certainty in the present state of our knowledge, and yet until they are answered our treatment must remain halting and tentative. We trust bacteriology will come to our relief and accomplish in relation to pneumonia something comparable to its great achievements in other fields of enquiry.

THE employment of women, more especially of married women, is a question of admitted importance from a public health, as well as from an economic, point of view, and Miss COLLET'S recently issued report to the Board of Trade on this subject possesses more than a passing interest. The

census returns for 1881 and 1891 do not, as she points out, confirm the general impression that the employment of women is rapidly extending—in fact, the proportion of women returned as occupied remained practically stationary during the decade 1881–91, while the employment of girls and women under twenty-five years of age showed an increase during the ten years. Miss COLLET'S report affords conclusive evidence that the employment of married women, and generally of women over the age of twenty-five years, had declined during that period. The increased employment of girls and young women, moreover, occurred, it appears, concurrently with a similar increase in the employment of boys and young men. It is true that a combination of causes, including a diminished probability of marriage, have recently tended to encourage middle-class girls to seek definite occupation in increasing proportion; but Miss COLLET points out that the "industrial position of women, speaking generally, varies with the degree of material prosperity of the men in the class to which they belong," and that the increase of wages and of the general standard of comfort among what are called the "working classes" have in recent years enabled the services of the daughters to be retained at home in increased proportions. In the general English population, of 100 girls and women over ten years of age 34·1 were returned as occupied at the census in 1881, while at the more recent census in 1891 the proportion occupied had only fractionally increased to 34·4 per cent. It is an eminently satisfactory fact that above the age of twenty-five years there has been a distinct decline in the employment of women in all factory and workshop trades (except tailoring), as well as in occupations giving merely casual employment. This necessarily implies a decrease in the employment of married women, and it is beyond doubt that the slight increase in the employment of girls and women generally is due to the increase under the age of twenty-five years and to the increased employment of middle-class women mainly in teaching and clerical occupations.

The unquestionable importance of the effect of the employment of married women upon infant mortality, more especially of employment in factory and workshop trades, gives special interest to Miss COLLET'S statistics on this branch of the subject. The census tables do not, unfortunately, afford any direct information concerning condition as to marriage of the women returned as following definite occupations. Indirectly, however, Miss COLLET has been able to show from these returns the minimum percentage of married and widowed women returned as occupied in different sections of the population. For instance, if the number of occupied women exceeds the number of single women in a given population, she correctly assumes that this excess represents the minimum percentage of employed women who are either married or widowed. In one of the tables in her report she gives this minimum percentage of employed married women in 19 industrial English towns, both in 1881 and in 1891, the figures showing a reduction in 1891 of the minimum percentage of married women aged between twenty-five and forty-five years engaged in industry in each of these towns, with the exception of Burnley. These figures undoubtedly justify the inference that, at any rate in these 19 industrial towns, the percentage of married women employed in industry is diminishing. Notwithstanding, however, this tendency towards the diminution of industrial labour among married women, the minimum percentage is still exceedingly high in many of the "textile" towns. For instance, this minimum percentage in 1891 was equal to 18·7 in Preston, 22·1 in Burnley, and 26·6 in Blackburn. Miss COLLET remarks, with reference to these figures, that "in such towns, where nearly all the girls under twenty, and half the women between twenty and forty-five, are engaged away from home, we may naturally look for a high rate of infant mortality, and expectation is justified by the facts." It is undoubtedly true that the rate of infant mortality is excessively high in each of these three Lancashire manufacturing towns, more especially in Preston; but it should be noted that the rate was very considerably lower both in Burnley and in Blackburn than in Preston, although the proportion of employed married women both in Burnley and in Blackburn was considerably higher than in Preston. It is evident that the factory employment of married women, deleterious as it must be to infant life, is not the controlling factor of infant mortality. In proof of this it may be noted from Miss COLLET'S table that the proportion of employed married women is nearly twice as high in Bradford as it is in Leeds and Huddersfield; the rate of infant mortality last year was, however, considerably lower in Bradford than it was either in Huddersfield or in Leeds. It is, moreover, a fact that infant mortality is persistently high in the mining districts of Durham, Northumberland, and South Wales, in which the industrial employment of women is considerably below the average.

From special returns furnished to the Board of Trade and utilised by Miss COLLET in her report, it appears that 32·9 per cent. of the women aged upwards of eighteen years employed in the cotton mills of Lancashire and Cheshire were either married or widowed; in the woollen mills in Yorkshire 29·8 per cent.; and in the worsted mills in Yorkshire only 21·2 per cent. Miss COLLET, after careful examination of these returns, comes to the conclusion that there is no ground for doubting their approximate accuracy, except that there may be a tendency to return unmarried women with children as married. It is evident, therefore, that the proportion of employed married women is far greater in Lancashire than in Yorkshire, and this may partly account for the greater excess of infant mortality in Lancashire, although the lower general sanitary conditions of the Lancashire towns cannot be ignored as an important factor of the excessive infant mortality therein. It is much to be hoped that Miss COLLET will be able to further investigate this important question of the factory employment of married women, with special reference to its influence upon infant mortality. A more exhaustive and elaborate analysis of the census returns in the various industrial towns, to which she has had access, with a view to determine the ages of the married women employed, and the numbers and ages of their children at the time of the census, would throw much additional light upon the extent to which young children in these towns are deprived of their mothers' care and attention, and would supply a more accurate basis for calculating the true effect of the employment

of mothers on infant mortality. We cannot, however, speak too highly of the value of Miss COLLET'S report and of her conclusions that there has been recently no general increase in the industrial employment of women, and that as regards such employment of married women there has been an undoubted decline.

Annotations.

"Ne quid nimis."

THE GENERAL ELECTION.

THERE can no longer be any doubt as to the result of the General Election. The Unionists will be returned with a very large majority and untrammelled by any special pledges. About the general line of their policy there cannot, however, be much room for doubt. Its tendency will be the opposite of that pursued by the Government which it supplants. We have, as medical journalists, nothing to do with politics, except in so far as they are likely to affect questions of public health, the progress of national hygiene, and the interests of the medical profession. We are always ready to welcome and press forward to the best of our ability any earnest and good work and any legislative attempts in these directions from whatever source they may come. Like all stories worth the telling, the moral of this election lies upon the surface, notwithstanding that it will be differently read in the light of party bias and interest. The next parliament will see a strong Government, not harassed and embarrassed by doubtful votes, but homogeneous in its construction, and not dependent for its existence on adjusting in harmonious action a number of different parties, each intent on pursuing and obtaining its own end. The present Government is relatively unpledged. With such a majority the fear will rather arise from within than without lest it should disintegrate from the size of the Cabinet and the carelessness of Members in the performance of their duties and in their attendance at the House. There will, at any rate, be time, under the circumstances, for a policy of natural evolution, and the Government will have no temptation to keep itself *en évidence* by ambitious, far-reaching, and contentious legislative measures that, rightly or wrongly, in the eyes of many practical, sober-minded people, seem to be a policy of revolution. The interests of the nation, assured of the result of the General Election, is now focussed in the inquiry, "What will they do with it?" Whatever else may be done, there are several important matters of public health calling for attention, and there is plenty of room for the prosecution of work of a hygienic and domestic character affecting the health and well-being and every-day life of the people of the British Empire. Attention to these matters may not have the glamour attending legislative efforts of a larger and more ambitious sort, but it will be largely productive of the comfort and contentment of the people, give scope to successful commerce and labour, and sweeten the breath of society from the peer to the peasant. A late Prime Minister was not far wrong when he emphatically summarised the national importance of sanitation in a phrase, and the new Ministers will, among other things, have to fulfil the expectations they have raised by their expressions of sympathy with the social and sanitary requirements of those who live and labour in our large cities, towns, and villages.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

THE letters of the Lord Mayor, Sir Joseph Renals, and of Sir Sydney Waterlow appealing to the benevolent of this wealthy metropolis to bring the Fund for this year up to £50,000 deserve a generous response. It is gratifying to learn that Sir Sydney Waterlow estimates already that the yield of this year's collection will be £46,000. The amount available for distribution will evidently exceed that of any previous year. This is one side of the question—the pleasing and the creditable side. But there is the other, neither pleasing nor creditable—1901 beds unoccupied and empty. There is no question here of abuse of hospital charity. It needs no excess of imagination to realise how many sufferers there are in the one-room and two-room families of London who would be immensely benefited by a few weeks in a well-found hospital. Let it never be forgotten that nearly one-sixth of the families of London, according to the last census, are living in one room each. A larger collection would give to them some or all of these 1901 beds. Is it too much to ask for a few large subscriptions towards this most desirable result? The clergy and the ministers have done their part. Many of them represent congregations of most limited means. Out of deep poverty much of this collection has come, and from churches which have enough to do to make ends meet. If the £50,000 on which the council has set its heart, and which is surely not an excessive demand, is to be completed it must be by rich men casting into the treasury. The Fund was never better administered. The unworthy are excluded, and the more meritorious and needy are taken into account. We trust that before the meeting of the council on Monday at 2.30 P.M. the Lord Mayor, whose efforts in this matter have been very praiseworthy, will be able to announce that the sum wished for has been raised, and that the hearts of all who believe in our voluntary hospital system have been rejoiced.

WATER-SUPPLY IN RURAL DISTRICTS.

To procure a proper water-supply for isolated houses and small groups of houses is a problem the satisfactory solution of which often taxes to the utmost the ingenuity of the medical officer of health, and it must be confessed that in some instances it seems as if the difficulty of obtaining a supply altogether above suspicion produces a condition of the executive in which all action is paralysed and the inhabitants are left to obtain their drinking water from shallow wells from which no attempt has been made to exclude surface water, or even from neighbouring ponds or ditches. How much the comfort of all classes of our rural population depends upon the knowledge, activity, and influence of the medical officer of health may be seen by comparing certain rural districts with one another, comparisons which probably many of our readers are quite capable of supplying from their own personal experience. As instances of what may be done by an energetic medical officer of health familiar with the local geology, may be mentioned certain rural sanitary districts in Essex, over the health of which one who has now been appointed the county medical officer of health has for some years past presided, and owing to whose efforts people of all classes living in the districts in question have been furnished with a pure water-supply. Dr. Darra Mair, the medical officer of health to the Croydon rural sanitary district, has, too, done much in a similar direction, and he has recently presented to his sanitary authority a report showing that the work is not yet finished. The district referred to is, we believe, as a whole well supplied with water, it being exceptionally situated in this respect by virtue of the many water mains which traverse or abut upon it. It appears, however, that in portions of the parishes of Coulsdon, Addington, and Woodmansterne there obtains a state of affairs which should certainly be at once remedied. Coulsdon is the parish where matters are worst, and here we learn there are between forty and fifty houses solely dependent on rain water for their supply. These houses possess underground covered

tanks in which the water is collected from the cottage roofs, and the supply of which, owing to the recent drought, has been much reduced and in some cases quite exhausted. Even where there is still water, it is, Dr. Mair tells us, "muddy and crowded with visible animal life." Some of the houses possess no tanks and are dependent for their supply upon a pond which, we regret to relate, is vested in the sanitary authority and the water of which "has an abominable stench when disturbed, evidently due to decaying vegetable matter." It is hardly to be wondered at that under these conditions the tenants complain of their water-supply and fear to drink it unboiled, or that its consumption in persons newly arrived in the district tends to produce acute intestinal disturbance. Small wonder, too, that the cottagers convert their water into ginger-beer or lemonade in order to conceal its nauseous properties. How much of the "summer drink" of country tourists is thus concocted? Dr. Mair, in his report, points out to the Croydon rural district council their powers and responsibilities under the Public Health Act, 1875, and the Public Health (Water) Act, 1878; and, in our opinion, he has adequately established that the existing supply of the houses referred to is both insufficient and unwholesome. Upon the rural district council now rests the responsibility.

NEWSPAPERS AND LIBEL.

A CASE has just been tried in the Supreme Court of West Australia which has great interest for medical men. The plaintiff, Mr. C. B. Elliott, Government medical officer in Geraldton, sued the Victorian Express Newspaper Company for libel. The libel was contained in the form of a letter, which letter implied that the large number of cripples in Geraldton was owing to the incompetence and neglect of the hospital medical officer, Mr. Elliott, and he accordingly asked for £2000 damages. There seems to have been a large amount of personal feeling exhibited by the writer of the letter, and a variety of witnesses were called to prove neglect and malpraxis on the part of the medical officer. After a trial which lasted eight days the jury awarded Mr. Elliott £500 and costs, the editor being also sentenced to fourteen days' imprisonment for some contempt of court occurring during the trial. While we congratulate Mr. Elliott upon his success, we feel bound to remark that the Geraldton Hospital does not seem up to the modern standard in many ways, and also that people should not set one man to do an amount of work which would be enough for ten.

DANGEROUS EXHIBITIONS.

AN incident recently took place at the Royal Aquarium which, though happily unattended with any serious consequences, shows forcibly the dangerous character of certain public exhibitions. A girl performer on the high trapeze missed the trapeze for which she was making, but managed to catch one of the tie-rods of the roof, where she had to remain some time until she let herself go and fell into the net. We have not the details before us, but it is evident that the child—for we believe she was no more—might easily have lost her life except for her pluck and presence of mind. We are fully conscious of the grace and beauty displayed in trapeze exercises, but the point we take exception to is the element of danger which enters into these feats when performed at a height of 90 ft. or 100 ft. above the ground. Just as much skill, just as much grace, just as much practice are needful for the performance of gymnastics on a trapeze ten feet from the ground; but the fact is that the British people, like all peoples, has a morbid liking for looking at spectacles when there is a possibility of "something happening." Hence the popularity of shows like the one of which we are speaking, fancy shooting exhibitions, where a mark is placed on a man's head, &c. It is just as difficult to hit the ace of hearts when nailed up on a board as when it is placed upon a man's head, if we except the possibility of nervousness on the part of the shooter; but the one exhibition will draw a crowded house while the other will be a "frost." We are no advocates for grandmotherly government. If a certain class of idiots like to go on to thin ice we see no reason why they should not, except for the fact of their spoiling the ice; but no trading company should be allowed to make money out of risking other people's lives. The management of the Aquarium is, we know, very careful to minimise risk as much as possible, but even a net is not always a certain safeguard; and when, as we have said, the skill of the performer is equally displayed when the danger is absent we fail to see why the element of risk should be allowed.

COUNTY COURTS AND MIDWIFERY ENGAGEMENTS.

IN another column will be found a report of a case in the Holywell (Flintshire) County Court, in which a physician and surgeon, Mr. J. William Parry, of Bagillt, sued John Venables Price for £2 8*s*. This sum represented 6*s*. balance of an old account and a fee of one guinea each for two engagements to attend Mrs. Price in her confinement. The first engagement was in July, 1893, and the second in April last. In neither case was the plaintiff sent for. He did not take any action to recover the first fee until the defendant again failed to send for him on the second occasion. The practice of so retaining medical men and then not sending for them being very common in this district, the plaintiff determined to bring the case into Court. The judge said the plaintiff had waived his claim for the 1893 engagement, but allowed a fee of 10*s* 6*d*. for the engagement of 1895. The amount is inadequate, as if the judge had accepted a fanciful theory of the defendant that when the medical attendant is engaged beforehand the fee is half a guinea, but when he is called suddenly a whole guinea. We cannot agree with this part of his Honour's ruling, but it is something to have to record his remark in, reference to people engaging an obstetrician and not sending for him, that "a bargain is a bargain."

RENAL DISEASE AND GENERAL PARALYSIS OF THE INSANE.

IN the last number of the *Journal of Mental Science* Dr. Hubert C. Bristowe recalls attention to a subject to which he has recently devoted considerable study. In a former paper he alluded to the high percentage of patients dying of general paralysis of the insane, who showed signs of chronic changes in the kidney. On considering the possible connexion between the clinical condition of general paralysis and the changes found post mortem in the kidneys, the condition of the arteries seemed to furnish a connecting link. At all events, as was pointed out, a diseased condition of the cerebral arteries occurred in those dying of granular kidneys very similar to, if not identical with, what is found in those dying of general paralysis of the insane. In the present paper an attempt is made to supply the deficiencies in the first. Reference is first made to the statistics of Mr. Beadles and Dr. Bond. The former found that in 2610 cases of insanity there were 1123 cases of chronic renal disease, or 43·21 per cent. Dr. Bond out of 154 cases found 74 cases of renal disease, or 48 per cent. Dr Bristowe's numbers are 532 necropsies, 327 cases of chronic renal disease, or 61·466 per cent. The exclusion of patients over 60, in whom some chronic fibroid change in the kidney might be present without much significance, reduces the percentage to 52·9, a reduction of 8 per cent. Excluding also general paralytics, a further reduction by

12 per cent. is effected; and after making certain allowances Dr. Bristowe makes his percentage of chronic renal disease among the insane, excluding general paralytics, 44 per cent. Among general paralytics he finds the percentage of chronic renal disease to be 72·11, a sufficiently striking difference. Dr. Bristowe next takes the statistics of the Dorchester, Bristol, and Gloucester Asylums with reference to renal changes in general paralysis. At Dorchester the total percentage of diseased kidneys in general paralysis was 71·875, at Bristol 54 per cent., and at Gloucester 74·157. To account for the differences several factors have to be taken account of, and not the least important is the personal factor of the observer. Dr. Bristowe now takes his own figures together with Mr. Beadles' and Dr. Bond's, a total of 3446 cases of insanity. Of these patients, 48·867 had renal disease. Reckoning 12 per cent. of these as general paralytics and 4 per cent. as over 60, there is a percentage of renal disease amongst the insane under 60, excluding general paralytics, of 32. Taking, on the other hand, the statistics of the Somerset, Gloucester, Dorchester, and Bristol asylums as regards general paralysis and renal disease, there are 266 cases, and of these 183, or about 68·8 per cent., had renal changes. As Dr. Bristowe remarks, from the statistics it seems justifiable to conclude that in general paralysis renal changes are much more common than in other forms of insanity—that, in fact, they are usually found. Dr. Bristowe briefly considers the question of the cause of these changes, and is of opinion that they depend upon some toxic condition in the blood—possibly alcohol, possibly syphilis, perhaps both; and in concluding his paper asserts that he is still able to maintain, after a wider examination of material, that renal disease of some form is exceedingly common in general paralysis. At the same time, he remarks, it is not clear that the form of renal disease is always interstitial nephritis, and he inclines to the view of Gull and Sutton that there is such a disease as arterio-capillary fibrosis, in which the kidneys are commonly affected. Dr. Bristowe would also suggest that disease of the brain—that disease which manifests itself clinically as general paralysis of the insane—is under some circumstances another result.

THE RED SEA PILGRIM TRAFFIC.

WE learn from the *Times of India* of the 5th inst. that a Government resolution has been passed announcing that a Bill is about to be introduced in the Supreme Legislative Council for the special regulation of this traffic. The changes about to be effected are mainly those resolved upon at the late Paris Convention, and it is proposed to get the Bill passed in time to give effect to the new regulations for next year's *Haj*. Speaking generally, the recommendations of the Paris Convention strike us as very necessary and good. As regards the increased space to be allowed to each pilgrim, the Convention required that twenty-one and a half square feet should be given for each pilgrim of whatever age. The British Government reserved, it will be remembered, the point at the time, but they have now intimated that they will make a minimum standard of sixteen square feet for each pilgrim irrespective of age. There can be no doubt that on sanitary grounds the Convention was right, but unfortunately other considerations come in. Increased space entails increased expense, with the result of raising the fares for the pilgrims and of consequently wholly excluding a large number of poor Mahomedans from making the *Haj*. From the public health standpoint this is a very good thing perhaps, but it must be remembered that the pilgrimage is to Mahomedans a religious act of the most important kind. As regards other matters—the extension of the notice of sailing to pilgrims, the provision that the upper deck shall be clear of all encumbrances and kept exclusively for their use, the increase of hospital accommodation, the medical inspection of all pilgrims previously to embarkation instead of on shipboard, and the new regulations as to water-supply and hygienic arrangements during the voyage—these are matters of common sense and prudence. As regards the embarkation of pauper pilgrims it has been wisely suggested that something should be done with a view to some limitation of the large number of these poor creatures, who yearly make the pilgrimage only to die of fatigue and starvation, by seeing that they are provided with sufficient funds before granting them embarkation tickets. The health officer at Bombay has suggested that the captains of pilgrim ships should be required to keep a return of the number of passengers on the outward and homeward voyages, and that such a supervision over the sale of tickets to passengers should be enforced as to ensure that it is not in excess of the measured accommodation provided on shipboard for each separate class. There are also other details of a minor character which we hope to see incorporated in the forthcoming Bill; but nothing is likely to prove efficacious until some radical changes are carried out at the Cameran lazaretto, and we hope that the British Government will not only put pressure upon the Turkish Government in this direction, but obtain the permission of the Porte to send out some one from this country to see and report upon what is done.

WOODEN-LEGGED PEDESTRIANISM.

NOGENT-SUR-MARNE, a city not hitherto celebrated as a sporting centre, has rendered itself famous by inaugurating a series of running contests for wooden-legged athletes. Not long ago, in response to a general invitation, no fewer than sixty-seven individuals who had lost either a leg or a thigh competed for a number of prizes, the distance to be covered amounting in every case to 200 metres. The enterprising cripples were divided into *cuissards* and *jambards*, and, contrary to what might have been expected, the "grand champion" turned up amongst the former class. M. Roulin, whose thigh had to be amputated in 1887 in consequence of an accident, succeeded in getting over the course (about 220 yards) in the very remarkable time of thirty seconds; whereas M. Florant, the most speedy *jambard*, took thirty-six seconds, and was, moreover, easily defeated by the second and third *cuissards* as well as by the champion. There was also a race for juniors, but the youngsters failed to approach the veterans, the winner's time being thirty-five seconds. The proceedings ended with a *course de consolation*, which was carried off in thirty-three seconds by M. Mansire, but whether this gentleman was a *cuissard* or a *jambard* is not stated. Altogether the meeting, or match as our French friends called it, was a great success, affording endless delight to both competitors and spectators. If a similar show were to be organised in this country it would doubtless be productive of a large sum in gate-money, which might be devoted to some charity connected with athletics, or, better still, be added to the Hospital Sunday Fund. Our contemporary, *Le Progrès Médical*, to whom we are indebted for the foregoing particulars, concludes its article in the following terms: "We have made a point of giving the names of all the *lauréats*, inasmuch as some surgeons may perchance in this way obtain tidings of patients on whom they operated, but whom they have not seen or heard of since, as convalescents, they quitted the hospital." This passage is very satirical (although the writer was probably not aiming in that direction), and might aptly serve as text for a homily on gratitude, or rather on the absence of that sentiment among patients in general. The author of the definition that gratitude is a lively sense of favours to come would of course argue that surgeons have no right to expect any recognition of

their services. A man who has lost one leg under the knife does not look forward anxiously to parting with its fellow. Speaking in all seriousness, however, there is probably no class of men whose services to the community are as a matter of course received with less gratitude than those which are rendered by medical practitioners. No other toilers in the industrial hive lead such wearing lives as medical men in general practice, who are compelled to remain on duty perpetually, night and day alike, and yet the meed of recognition they receive is indeed scanty.

THE INDEX MEDICUS.

IN our issue of June 29th we pointed out how important a matter it was that the Index Medicus should not be allowed to perish. The yearly cost of production is about £1,000, and it is proposed to raise this sum by 200 subscriptions of £5 each. The United States, it is estimated, will supply 120, Great Britain 60, and the Continent 20. We think, however, that Great Britain with all her learned societies might well subscribe £400 by herself. If £5 is too heavy a tax for one individual to undertake, there are surely five medical men in every one of our large towns, each of whom would subscribe £1, and so form a group which would receive a copy of the Index for their common use; while institutions and societies should have no hesitation in voting the required amount. Those who are willing to subscribe are requested to communicate with the Librarian, Royal Medical and Chirurgical Society, 20, Hanover-square, London, W.

TREPHINING FOR EPILEPSY.

IN a recent number of the *Archives de Neurologie*, Dr. Hallager of Viborg relates a case which presents several points of interest. The patient was a single woman aged twenty-two, in whose family history pulmonary troubles played a considerable part. From the age of twelve the patient herself had at times suffered from chlorosis with palpitation, but had no serious illness until January, 1893, when she became suddenly ill, and was only able to utter the words "Ja" and "Nein." The day after the commencement of her illness she had the first convulsive attack. At this time the right arm was paretic, and a few days later the right leg also was affected. After some weeks she was able to speak, and the paresis gradually diminished, first in the leg and later in the arm. She remained in bed for five or six weeks, and at the end of this time was still unable to read, although she was able to see and recognise letters. Several convulsive attacks took place in the first week of her illness, and she then went for about two months without any. She then had an attack which commenced with shaking of the right arm, followed by elevation of this limb above the head. The right side of the face was then affected and general pain was experienced throughout the body. Consciousness was lost, the convulsions became general and were succeeded by coma. General headache was experienced on recovery from the comatose condition. Apart from some affection of memory the mental condition was unaffected and no distinct paralysis was present. Under treatment by bromides the convulsive seizures diminished in frequency and intensity, but did not cease. An attack which was witnessed, commenced with localised spasm in the right forearm, followed by a continued movement of flexion at the elbow and elevation of the arm. She then lost consciousness, fell down, and became convulsed generally. Attacks of spasm similar to what occurred at the commencement of this attack were also common, but consciousness was not lost and the convulsion was only local. There was no optic neuritis, and it was thought that the lesion determining the attacks was probably the result of hæmorrhage or embolism, and operation was determined upon as likely to afford at least some relief. Trephining was performed in front of the fissure of Rolando, and when the disc of bone was removed the discoloured dura mater bulged through the opening. The opening in the bone was enlarged until normal dura mater was visible all round the discoloured part; the membrane was incised and a sound passed through the congested pia mater into a cystic cavity as large as a nut. This cyst was incised, and its dark brown contents removed, together with the walls of the cyst. After the operation there was weakness of the limbs on the right side, and the patient occasionally experienced muscular spasm in the forearm. About a month after the operation she had two attacks similar to those which had previously occurred. She was put on bromides and remained free from attacks till the time at which the account of the case was written. She was free from pain also, and apart from some impairment of memory and a difficulty in effecting fine movements with the right hand was quite well. The cyst was probably the result of hæmorrhage, as hæmatoidin crystals were found in the detritus removed at the time of operation. As the writer remarks, it is not quite certain what the future of such a case will be. The irritative cyst has been replaced by a cicatrix, with, no doubt, at first some inflammation around it, but it is to be hoped that this will subside and that there will be no recurrence of the convulsive seizures. We would call attention to the similarity of symptoms and treatment in this case to those in Mr. Anderson's case occurring at St. Thomas's Hospital, a full account of which is given in our "Mirror of Hospital Practice" this week.

THE BOILER EXPLOSION IN YORKSHIRE.

ALTHOUGH it is not always possible to foresee and prevent accidents, risk may be greatly minimised when proper precautions are taken, and it is the duty of all employers to see that the rules and regulations made for this purpose are strictly adhered to. But accidents are constantly happening either from wilful disregard of rules by workmen themselves or from apathy on the part of employers or their subordinates in regard to their enforcement. At Warrenby, near Redcar, in June last, a most destructive boiler explosion occurred (recorded in THE LANCET, June 22nd, 1895), which resulted in the death of several workmen besides causing a terrible amount of distress in the district, the inhabitants of which depended almost entirely on the works at which the accident occurred for employment. The Board of Trade inquiry into this catastrophe has elicited the fact that, although the boilers had been pronounced to be dangerous, the heads of the firm were unaware of it through one of their servants failing to make the necessary report. Rightly, the firm has been held responsible, and ordered to contribute towards the cost of the inquiry; but this will not prevent similar accidents from occurring, and it is to be hoped that something may be done in the way of legislation to prevent as far as possible such a catastrophe in the future. This was perhaps the most destructive explosion of the kind that has ever occurred in the north of England, and in some respects unique; but while both men and employers remain apathetic or callous to their danger the occurrence of such accidents should not excite wonder.

MONUMENT TO CARL VOGT.

THE Helvetian Walhalla will shortly be enriched with a bust of Carl Vogt, for many years Professor of Natural History in the University of Geneva and one of the chief ornaments and attractions of the Swiss school. We have too recently put on record our appreciation of the nature-student and the man to warrant our recapitulating his many claims to the gratitude of his contemporaries. Suffice it to say that while the Darwinian hypothesis owes much to him for its early and widely diffused acceptance on the Continent, his

"Zoologische Briefe" takes rank with Liebig's "Chemische Briefe" for the enthusiastic votaries it has attracted to the subject it presents so winningly. Long, indeed, after it has been superseded by the researches it has inspired it continues, like Watson's "Practice of Physic" or Latham's "Lectures on Diseases of the Heart," to be read as a model of scientific style. The many-sided genius of Vogt coinciding with a peculiarly benevolent and "magnetic" personality imposed a difficult task on the sculptor who has attempted to embody their expression in marble; but M. Auguste de Niederhausern, the artist in question, has achieved a brilliant and a gratifying success. Vogt's energetic vitality, his vigilant intelligence, his profound, sympathetic humanity, brimming over in the kindliest humour—all speak from the plastic work of M. de Niederhausern and perpetuate the character as well as the lineaments of the great naturalist for all nations and for all times. So felicitously rendered is the citizen as well as the *savant* that his Genevese compatriots are already grudging its relegation to the vestibule of the University, and are pleading for its being placed in the open air on the Promenade des Bastions—a position for which its lordly dimensions peculiarly adapt it. Vogt, they maintain, belonged to the public even more than to the school, and while the vestibule of the University is undoubtedly the proper *locale* for celebrities of a purely academic type, his large and versatile personality claims a post in fitter keeping with compatriot homage than the "groves of Academe." The controversy is a kindly as well as an interesting one; but however it may be settled, science may congratulate herself on having in perpetuity the "animated bust" of one of her truest votaries—a presence, in Lord Beaconsfield's language, calculated "not only to commemorate, but to inspire."

PSEUDO-BULBAR PARALYSIS.

IN the last volume of the Clinical Society's Transactions Dr. Newton Pitt has given full clinical and pathological details of a striking case of this interesting form of disease. The patient when first seen was a man aged fifty-one, who at Christmas, 1892, had an attack of slight right-sided weakness without aphasia. The face was markedly affected and inability to close the right eye persisted. Two months later he had an attack in which numbness about his left hand and the left side of the face was noticed. He was also speechless, but in the course of a few hours his speech returned, but was again lost, and it returned and was lost several times in the course of a few hours. It finally was lost and remained permanently in abeyance. He was first seen about sixty hours after the attack; then his face was expressionless, he was unable to raise or move his lips, and he could not close the eyelids tightly, although they were closed during sleep. He was unable to protrude his tongue or to swallow anything. His limbs were weak on both sides, but the knee-jerks were brisk, that on the left side being the greater. There was no impairment of sensibility and no wasting or fibrillary twitching in the tongue or other muscles. The urine contained albumen. The patient was carefully fed with the tube and gradually improved, so that he was able to return home, taking a tube with him. After six months, however, he was readmitted suffering from ascites. He was tapped on two occasions, but he gradually became more feeble and died. At the necropsy two patches of softening were found, one on the right side extending above the lenticular nucleus, and below, lying on its inner and posterior part, extending into the middle of the posterior limb of the internal capsule; the other on the left side, occupying the middle of the posterior limb of the internal capsule and below extending into the posterior part of the lenticular nucleus. The cerebral arteries were distinctly atheromatous. This case, it will be seen, is an excellent example of what is known as pseudo-bulbar paralysis—a form of paralysis in which the symptoms closely simulate those of bulbar palsy, but in which the lesion does not affect the cells of the bulbar nuclei, but consists of some change on each side of the cerebrum. Attention has been directed to the condition in this country, chiefly by Dr. Hughlings Jackson and the late Dr. James Ross of Manchester, and typical examples of the condition have been recorded by these observers as well as by Dr. Barlow and others. The explanation that has been offered is that with a lesion occurring on each side of the cerebrum there are movements lost which a unilateral lesion can only abolish temporarily, and especially those so-called bilaterally associated movements the muscles for which are subserved by the nerves whose nuclei are situated in the bulb. Of these muscles the chief are the tongue, the muscles of deglutition and mastication, and the facial muscles. Dr. Pitt's case is one of the most complete illustrations of this morbid condition that has ever been published, and he is to be congratulated on the manner in which he has put it on record.

THE BATTLE OF THE CLUBS AT BRUSSELS.

THE Brussels clubs are now, as we mentioned last week, without medical officers, the whole twenty of them having resigned, and no one else being willing to take the vacated posts—which, by the way, are only worth £48 per annum—until well-to-do people are excluded. The club officials are much incensed against their quondam medical attendants, and although these latter are continuing to visit—as a matter of charity—all the club patients who were on their lists at the time of resignation, notice has been given that the clubs will pay a fee of 2 francs when a member calls in a medical man, provided the latter be not one of those who have resigned. It is in this petty spirit of retaliation that the clubs are carrying on the contest. A hope is generally expressed that the university professors will make a point of impressing on the students who are completing their courses the necessity of working in concert with the whole body of the profession by utterly refusing to accept any of the vacated posts.

A SPLINTER IN THE TYMPANUM.

WHATEVER excuses may be made for the practical joker, it is not without reason that he is commonly regarded by the subjects of his operations with a feeling of uneasiness and suspicion. In him the craving for amusement is all too masterful, too heedless of the wishes and even the safety of his neighbours. His intention, indeed, may not be mischievous, but as much cannot always be said of its consequences. The truth of these remarks has been sadly and strikingly illustrated by the details of a recent fatal occurrence at Tottenham. The facts in this case were the following. A provision dealer's traveller called at a public-house for refreshment and there fell asleep. An attendant noticing this proceeded to amuse himself, as others may have done under similar circumstances, by tickling the sleeper's ear with a wooden spill used as a pipelight. The danger of such a proceeding might have suggested itself to any reasonable person, but in this instance it does not seem to have been thought of. A quick unconscious movement buried the wooden point in the drum of the ear, and fatal inflammation of the brain resulted. A jest with a sadder or a less expected termination was, perhaps, never practised. One cannot help mingling with a natural feeling of indignation something of pity for the unfortunate cause of this accident as well as for the immediate sufferer by it, and we may surely entertain a confident hope that the lesson of precaution so sharply

taught will not be forgotten. The history of punctured wounds of the tympanic membrane is not always as disastrous as in this case. We have here the history of a roughly inflicted wound, probably overlooked in its beginning and rapidly becoming a seat of septic absorption. We may gather from it a second moral—namely, the necessity of treating antiseptically and at once any injury at this site. So treated, wounds of the drum will often heal perfectly, while, on the other hand, a delay of a single day may result in lifelong deafness or worse. For the same reason every parent should view with anxious concern the dangerous but far too lightly regarded incident of earache with its associated inflammation in the ear-drum of a child.

BREATHING AND PHYSICAL DEVELOPMENT.

EVERYBODY breathes and many people breathe in quite a wrong manner. Medical men have known this for a long time, as have also teachers of singing, but it has never been clearly put before the public. This want is now supplied in a little work by Surgeon-Captain Hoper-Dixon, called, "The Art of Breathing as applied to Physical Development." It is the outcome of a lecture delivered by him before the Royal United Service Institution in March, 1894. He points out how the main respiratory muscle is the diaphragm and gives a number of simple rules and exercises for training the same. It is an important point, for a proper method of breathing means improved nutrition and consequently improved health. We await with interest Part II. of this unpretending little book, wherein the author proposes to treat the musical side of the question.

THE MODE OF DEATH FROM ELECTRIC SHOCK.

DR. J. MOUNT BLEYER of New York has advanced the view that death from electric shock is due to "dynamic apoplexy." He describes the post-mortem appearances in a criminal executed by electricity in whom the bloodvessels of the trunk and limbs were almost empty, while those of the head and neck were distended with blood. The violent muscular contractions produced by electric shock naturally tend to alter very considerably the distribution of the blood in the various parts of the body, and it is very probable that great cerebral engorgement, with hæmorrhages into the brain substance, may commonly occur in death from electric shock. The medical man who made the necropsy, however, would seem to overstate the case when he says that two quarts of blood escaped when the skull was opened. There is not room in the cranial cavity for that quantity. The immediate cause of death from electric shock is almost certainly due to stoppage of the heart, the injury to the brain here described not being an essential factor, though it may frequently coexist as a complication.

BACTERIOLOGICAL WORK IN CAIRO.

CAIRO has now a Professor of Bacteriology, who will shortly be provided by the Egyptian Government with a laboratory; but in the meantime Dr. Kaufmann has at his own expense set up a private laboratory in his house near the medical school. Here rabies inoculations were regularly carried on with virus obtained from Paris, Vienna, and Cairo itself, until the work was forcibly stopped by the summer heat destroying the virus and by the rabbits dying of an epidemic of coccidium oviforme. Some hundred examinations of false membrane have been made gratis for medical practitioners of all nationalities, about half of the cases proving to be diphtheritic. There is apparently no diphtheria in Cairo just now, and the general results of serum inoculation have been encouraging. Dr. Kaufmann and his assistant are also busily engaged in making an analysis of all drinking water in Egypt from the river, canals, wells, cisterns, and native filters, and of ice and of soda water. The native earthen filters are found to furnish a purer water when they have been used than when they are quite new. Cairo water taken direct from the Nile contains throughout the year from 2000 to 5000 microbes in one cubic centimetre. This compares very favourably with the water-supply (before filtration) of most European cities. The Cairo water is at its worst in June, when the Nile is lowest and is discoloured green by algæ, which are said to come from the Equatorial Lakes. This year the green water has been unusually evident, and has baffled the efforts of the water company by choking up the sand filter beds. Experiments are now being made to try to precipitate the colouring matter which appears in the Nile for three or four weeks every year. The soda water made in Cairo is said not to be above suspicion. The ice of the large town of Tantah was found to be extremely bad, and upon an official visit to the factory it was found that unfiltered water was partially used by the native workmen in preparing the ice. Analyses of the water supplied by the Cairo Water Company have been made every week or two by their desire, and it is to be hoped some day that an analytical control may be furnished every day. Such repeated analysis is obviously desirable, for the same filter-bed has been found during a few days to vary from under 50 microbes to more than 2000. However, as good results accruing from the bacteriological examinations already made, the company has agreed to separate their drainage-pipes from their intake-pipes, and also to deepen the filtering layer of their beds from eight inches to sixteen inches.

THE ASSOCIATION OF WORKERS IN ASYLUMS FOR THE INSANE.

THE inaugural meeting of this association was held on July 18th, under very favourable auspices, in the rooms of the Medical Society, Chandos-street. Its members, male and female, occupy ground apart from that of the popular and much-patronised hospital nurse, they are comparatively seldom brought into public notice, and it may be confidently hoped that one result of the movement now initiated will be to secure a more general recognition of the anxieties and responsibilities of asylum life. Sir Benjamin Ward Richardson presided and delivered an address, in the course of which he remarked that while hospital nursing had become a sort of profession during the last fifty years no commensurate improvements had been effected in the case of asylum attendants. Education and training raised the status and increased the usefulness of nurses, and this experience will no doubt be repeated when the same conditions are applied to attendants on the insane. Among the vice-presidents of the new association are the Earl and Countess of Arran, Cardinal Vaughan, and Sir William Broadbent. Dr. J. A. Wallis, one of the Lunacy Commissioners, also took part in the proceedings, and expressed his cordial sympathy with the objects of the meeting.

THE EAST LONDON WATER-SUPPLY.

THE state of matters in the East of London, owing to the scanty water-supply, is becoming very serious. The water company have for the last eighteen years or so been in the habit of giving a constant supply, and in consequence of this the sanitary authorities have wisely done away with domestic storage cisterns. The result of this is that now that the water company in exercise of their strict legal right have discontinued the constant supply owing to the drought the domestic supply is necessarily very insufficient. The house drains are not properly flushed, and consequently get blocked, and subsequently to this the death-rate from diarrhœa and the

number of infectious cases notified are rising with startling rapidity, so that on July 23rd inquests were held on the bodies of three infants, and in all three cases medical evidence was given that death arose from diarrhœa, and that the smells from the drains were most offensive. We believe we are correct in saying that the company are bound to supply a sufficiency for domestic purposes; *vide* Section 53 of the Waterworks Clauses Act of 1847: "Every owner and occupier of any dwelling-house or part of a dwelling-house within the limits of the special Act shall, when he has laid such communication pipes as aforesaid and paid or tendered the water-rate payable in respect thereof, according to the provisions of this and the special Act, be entitled to demand and receive from the undertakers a sufficient supply of water for his domestic purposes." The water in some districts supplied by the company is said to be "on" for two hours only out of the twenty-four. We contend that such things ought not to be. Flushing drains is of far greater importance than the watering of roads and public gardens, and we hope that steps will be taken to enable Mr. Kyffin of Hackney to state a case to the Superior Courts, as he obtained magisterial leave from Mr. Bushby to do so.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND CHOLERA MEDICINES.

THE public is still under the delusion that the Royal College of Physicians of London has prescribed for it in view of all cholera seasons and complaints, and some druggists perpetuate the delusion by having on their counters mixtures made up purporting to contain the precious ingredients once recommended for ready use in a time of panic It is time this delusion was exploded, and the profession has a right to expect the assistance of druggists in the matter. Whether it is ever the duty of the College to publish a general prescription, even on the invitation of Government, is a fine ethical point which deserves a little more attention from the College than it has received. But of one thing there can be no doubt—that the particular prescription referred to is somewhat antiquated and no longer represents the most enlightened views of physicians as to the best way of treating cholera and choleraic disease of a milder type. Happily, in the present year the element of panic does not exist; but, even so, there are right and wrong ways of treating choleraic attacks, and it is certainly true that among the wrong ways is the employment of a stereotyped prescription for general use.

FRONTAL TUMOUR WITH PSYCHICAL SYMPTOMS.

IN a recent number of the *Revue de Médecine* Dr. Lepine records the case of a woman aged forty-four, without a previous history of any significance, who had one night a convulsive seizure, followed by loss of consciousness and subsequently orbital headache, vertigo, and noises in the ears. On admission to hospital there was some psychical dulness, difficulty in walking, apparently from some impairment of equilibration, sometimes a tendency to retropulsion, and slow speech. Next day she had an attack in which she became comatose, with the head and eyes turned to the right. The pulse was slow, but unconsciousness only lasted a day. It was succeeded by a month of a condition similar to that in which the patient was on her admission. Then an attack of unconsciousness succeeded, with deviation of the head and eyes to the left and left facial paralysis. On emerging from the unconsciousness a curious psychical change was manifest. She had lost all recollection that her husband was dead (he had died seven years before), and she fancied that the patient in the next bed was her cousin. There was also left hemiopia. Another attack of unconsciousness was experienced, and this was followed by death. At the necropsy the pia mater and dura mater were found adherent at the anterior part of the right frontal lobe, and at this part a gummatous growth was found as big as a walnut. In the longitudinal fissure also on the left frontal lobe a little in front of the genu of the corpus callosum a smaller and apparently more recent gumma was found. No other appreciable changes in the cerebrum were discovered. The presence of psychical symptoms in this case is very interesting, especially in association with a morbid condition of the frontal lobes.

WE deeply regret if we have given the impression in a recent annotation upon self-poisoning by chloroform that the death of a distinguished young medical man, Dr. T. G. Sloan, was anything but the result of an accident. We understand that the statement published elsewhere that Dr. Sloan's face was found buried in his handkerchief is incorrect, and that his use of chloroform was not habitual. We sympathise very heartily with the Rev. John Sloan, the unfortunate young man's father, in the terrible loss that he has sustained, and deplore the fact that any misinterpretation should have added to his grief.

THE Executive Committee of the General Medical Council met on Monday last to consider the conveyance to the Council of 16, Hanover-square, in accordance with the resolutions passed at a recent meeting. Estimates for the proposed alterations were considered, and the lowest tender accepted, and it was decided to submit the plans for warming, lighting, and ventilating to Dr. Thorne Thorne and Mr. Teale.

BY the death of the venerable Professor Charles Cardale Babington, F.R.S., which occurred on Monday last, the University of Cambridge loses one of its best known and most popular, able, and respected teachers, and the scientific world a well-known botanist and antiquarian.

THE MIDDLESEX HOSPITAL.

NEW OPERATION THEATRE, &c.

THE new building comprises a large theatre, a room for the administration of anæsthetics, a surgeon's room, recovery room, and a small theatre for special operations, all on the ground floor; also a large work room for the instrument man and a boiler-house and rooms for the ventilating and heating apparatus in the basement.

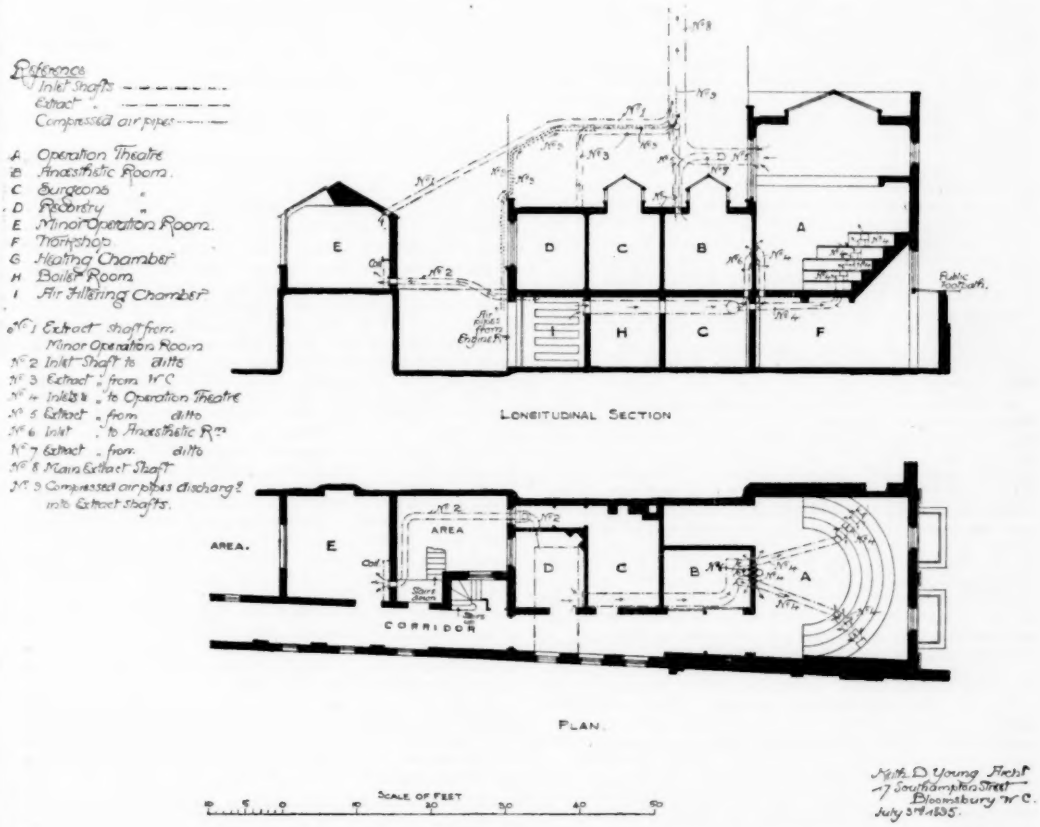
The large theatre has accommodation for about 130 students in semicircular tiers of benches formed of teak and approached by a staircase outside the theatre corridor. This staircase gives access to a gallery which runs round three sides of the theatre, whence two teak staircases lead down to the top tier of staging. The walls of the theatre are lined with glazed tiles, the lower part of which are green and the upper part buff. The floor is of marble terrazzo, of which material also the floors of the gallery and corridor are formed. In a recess on one side of the theatre are two lavatory basins, an enamelled slate shelf for carrying the electric apparatus for boiling water, a sink for cleaning instruments, and a slop sink; a cupboard for dressings and a lift to the basement for conveying instruments, &c., up and down. In this recess also are four sets of plate-glass shelves carried on specially designed brass brackets.

On the wall at the back of the operation table are two glass black-boards let in flush with the tiles. The instrument case, made entirely of glass and brass, stands in the recess to the left of the table. Facing this are two porcelain sinks for washing sponges, with the small wringer fixed between. Above these sinks is a glass shelf, on which stand the jars containing antiseptic solutions. All the pipes supplying the sinks are of copper and the taps and valves of brass. The glass jars for irrigation are fixed to the ceiling of the gallery

to teak blocks let into the concrete. In the centre of the lowest tier of staging is a glass case containing electric plugs for cauteries, hand-lamps, &c.

The theatre is lighted by seven single-light pendants, containing one 16 candle-power lamp each and an adjustable pendant for the operation table, which travels on a brass rod fitted from one side of the gallery to the other. The anæsthetic room has a dado of glazed tiles above, while the walls provide the necessary warmth in cold weather. In each inlet trunk and also in each outlet trunk a pipe conveying compressed air is fixed and the air is discharged through a nozzle into the trunk. The high velocity of the air thus discharged causes the air in the trunk to move in the direction of the nozzle, and it is found that the air of the large theatre can be entirely renewed with no perceptible draught between ten and eleven times in the hour.

The Middlesex Hospital Mortimer Street W.
New Operation Theatre.



Mitch. D. Young Archt
7 Southampton Street
Bloomsbury W.C.
July 5th 1895.

are painted and varnished. The door to this room, which is of oak, is hung on wheels at the top, and slides into a recess in order to give ample room for wheeling the ambulance in and out. The floor is of teak. The surgeon's room has painted walls and a teak floor.

The smaller operating theatre has its walls lined with tiles and a terrazzo floor similar to the large theatre. There is a large vertical window facing north with a roof-light over it. A lavatory basin, a sink, and glass shelves, similar to those in the large theatre, are provided here. The corridor of access is paved with terrazzo, and the walls and ceiling are lined with glazed tiles. The large and small theatre and the anæsthetic-room are warmed and ventilated partly by direct radiation from hot-water coils and partly by a mechanical system, the motive power of which is compressed air. The whole of the air which is to be admitted into these rooms is first passed through a filter-chamber containing a series of trays filled with cotton-wool, with, at the entrance, a vertical screen of hemp, over which a water-spray is projected to intercept the coarser particles. From this chamber the air passes by ducts into a room in which is a very large and powerful series of hot-water coils, which

An exhaust shaft only is provided to the w.c. attached to the surgeons' room, in order to guard against the possibility of air passing from the w.c. towards the theatre. The inlet tubes in the theatre and anæsthetic room are formed of copper, and have specially devised mouthpieces for spreading the air in all directions.

It will be seen that this addition to the hospital leaves nothing to be desired from the most modern point of view.

THE PERNICIOUS FEVERS OF EASTERN AFRICA.

STAFF-SURGEON-MAJOR STEUDEL, of the German army of occupation in Eastern Africa, who has been for some time past in medical charge of the hospital at Bagamoyo, has written a most interesting paper on the bilious hæmaturic fevers of the locality, which has been published in part by the authorities at Berlin. In twelve cases he made an

examination of the blood by means of Fleischl's hæmometer, and found that the amount of hæmoglobin present oscillated between 50 and 21 per cent. of the normal standard. In two other cases the quantity was too small to be determined by the instrument, but it was estimated by the observer at not more than 5 and 8 per cent. respectively. He lays stress upon the prognostic value of hæmatological examinations, and furnishes details regarding two patients with a deficiency of hæmoglobin in their blood in whom bilious fever subsequently showed itself on several occasions when their ordinary mode of life underwent a change for the worse.

It seems only reasonable to conclude that a systematic use of the hæmometer cannot but render great service in the detection of the incipient stage of a disease which is invariably attended by more or less destruction of the red corpuscles of the blood. Staff-Surgeon-Major Steudel looks on the diminution of hæmoglobin as a certain index of latent or incipient malaria, and is satisfied that this important sign manifests itself long before the more salient symptoms become apparent. As long as the impoverishment continues slight the sufferer can be restored by appropriate treatment on the spot, but as soon as it passes certain limits he should at once be invalided to Europe, or at all events sent to a sanatorium. The means thus furnished for unmasking the insidious enemy while it is still comparatively impotent, and before it has had time to acquire the firm hold on the patient's constitution which it subsequently manifests, should enable the medical officer to save many a valuable life that otherwise would be sacrificed to the curse of Africa. In this connexion it is impossible to avoid calling to mind the untimely deaths of the two distinguished brothers cut off by African fever in well-nigh the bloom of their youth. Perchance if the hæmometer had been used, as the German surgeon suggests, the sacrifice of the Portals might have been averted.

In one case, where the hæmoglobin was reduced to less than 8 per cent. of the usual amount, Staff-Surgeon-Major Steudel had recourse to transfusion of blood with conspicuous success, the supply of vital fluid being furnished by a young negro. Almost immediately the percentage of corpuscles rose to 20, and eventually the patient made a good recovery. Transfusion in paludism does not seem to have been often essayed, and yet in the rare cases that are recorded the effects of fresh blood are said to be highly satisfactory. According to the Italian school, the physiological solution of chloride of sodium gives just as good results as the arm-to-arm procedure, if not better, but exact data with regard to the entire subject are still wanting. With reference to substitutes for human blood in transfusion, an anonymous writer in the *Archives de Médecine Navale et Coloniale* warns prospective transfusers against making a trial of the blood of mammifers for intravenous injection, the effects being disastrous to the integrity of the remaining red corpuscles. In some instances where the experiment was tried aggravation of the symptoms ensued, accompanied for the most part by hæmaturia. The same writer recommends venesection before transfusion, in order to free the system from a portion of the toxic products of the disintegrated hæmoglobin. Venesection alone without subsequent transfusion has been tried in the convulsive form of impaludism, and apparently with good effects. Kelsch and Kiener relate a case[1] in which Dr. Borius was satisfied that he had saved the life of a patient who was well-nigh *in extremis* by a copious depletory bleeding; but here, too, more detailed information is a desideratum.

In severe cases of paludal fever Staff-Surgeon-Major Steudel gives as much as ten grammes of quinine (154 grains) for a dose, the results of this somewhat heroic medication being extremely brilliant, not a single patient so treated having died. In the opinion of many medical men practising in malarious regions quinine in large doses is apt to provoke hæmaturia. This view is almost universally prevalent amongst Grecian practitioners, but the careful observations of the German surgeon would seem to prove the contrary. As a prophylactic he gives the drug in doses of from twelve to fifteen grains once a week in fair weather and twice a week during the rains.

There is one point bearing on the etiology of paludism which receives some elucidation in the Bagamoyo record, and is both novel and interesting. Bilious fever seldom or never attacks men when they are on the march or engaged in any occupation necessitating hard work. The disease waits, as it were, until they are enjoying an unguarded repose before pouncing down upon them. In the opinion of Staff-Surgeon-Major Steudel the reason of this is that so long as the body is maintained in a state of activity the products of disintegration are completely eliminated as soon as they are formed, whereas during inactivity the blood becomes more or less charged with detritus, which serves as nidus for the paludal poison.

Finally, Staff-Surgeon-Major Steudel lays down the following practical rules. Every man designated for service in Eastern Africa should be thoroughly examined as to his constitutional fitness. He should be in perfect condition as regards his heart, stomach, and intestinal tract, and should be quite free from all traces of anæmia and neurasthenia. Ear affections, interfering with the administration of quinine, should likewise be considered prohibitive, and so should the intolerance of that drug which constitutes an idiosyncrasy with some people.

[1] Traité des Maladies des Pays Chauds.

MEDICAL TRIALS.

COUNTY COURTS AND MIDWIFERY ENGAGEMENTS.

AT the Holywell (Flintshire) County Court on July 16th a case which raised a point hitherto undecided was heard, in which Mr. J. William Parry, a physician and surgeon practising at Bagillt, sued a man named John Venables Price for £2 8*s*., balance of account and damages for breach of contract. Mr. H. T. Smith, solicitor, appeared for the plaintiff.

Mr. Parry stated that defendant owed him 6*s*. balance of account rendered. In July, 1893, defendant specially engaged him to attend his wife at her approaching confinement, it being agreed between them that plaintiff was to attend in any case, and not merely in the case of an emergency arising. Defendant said he wished him to attend his wife without a midwife, and plaintiff entered it in his book as an engagement, and held himself in readiness to attend when required. Defendant's wife was duly confined, but plaintiff was not called in. In April last defendant again came to engage him for a similar purpose. Plaintiff told him he had done wrong in not calling him in on the previous occasion, and said to him, "Is it right on this occasion?" and he replied that it was. Notwithstanding this plaintiff was not called in at the confinement. Plaintiff had brought this case as a test case in order to put a stop to a practice which was getting very common in Bagillt.

His Honour considered that the plaintiff had waived his claim to the £1 1*s*. for July, 1893.

Defendant stated that it was the custom to pay the medical man half a guinea "if you spoke in time," but a guinea if you called him in suddenly.

His Honour said a bargain was a bargain. Defendant had engaged the medical man to attend his wife, and if he had not come when called he would have found fault with him. He should give a verdict for plaintiff for half a guinea, together with the 6*s*. balance of account.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held at 101, Harley-street, W., on July 17th, at 5.30 P.M. The minutes of the last meeting were read and confirmed. Mr. Percy Dunn, the hon. secretary, drew attention to the result of the election of members of Council at the College on the 4th inst., and pointed out that two of the candidates supported by the Association had been successful. A vote of thanks was unanimously passed to Mr. A. T. Norton for representing the Association at the election.

The Hon. Secretary then read the following letter:—

Royal College of Surgeons of England, Lincoln's-inn-fields, London, W.C., 15th day of July, 1895.

DEAR SIR,—The attention of the President has been directed to THE LANCET of the 13th instant, in which are printed the alterations in the charters and by-laws of the College proposed by the "Association of Fellows," and in which a change has been made in paragraph 3 thereof, of which no notice has been received at the College. I am

therefore desired to inquire whether this change is to be understood to have been adopted by the Association. I am at the same time to express the surprise of the President that the proposals of the Association, which are still under the consideration of the Committee of the Council appointed to report thereon, should at this stage have been published in a public journal.

I am, Dear Sir, yours faithfully,

H. Percy Dunn, Esq. EDWARD TRIMMER, Secretary.

After some discussion the Hon. Secretary was instructed to forward to the Secretary of the College the following reply :—

54, Wimpole-street, July 17th, 1875.

DEAR SIR,—Your letter of the 15th inst. was read at a meeting of the Committee of the Association of Fellows held this afternoon, and I am directed to inform you that the amended Clause 3, published in THE LANCET, was not inserted either with the sanction or knowledge of the committee. Nevertheless, I am instructed to say that the amendment itself meets with the approval of the committee, and accordingly the committee would wish that Clause 3 should stand as follows:—"That no alteration in the constitution or external relations of the College shall be effected without the body corporate being convened to discuss such proposed alteration." While regretting that this amended clause should have appeared in THE LANCET before it had been officially communicated to the College, the committee desire it to be understood that they have always courted the fullest publicity for their proceedings, and for this reason it has been, and still is, their rule to sanction the earliest publication of them in the medical journals.

I am, dear Sir, yours faithfully,

H. PERCY DUNN, Hon. Sec.

The proceedings at the half-yearly meeting of the Fellows at the College were then discussed, and attention was drawn to the fact that the President had declared the meeting closed without affording to the Fellows any opportunity of discussing the business which appeared on the agenda. This appeared to the Committee to be of such importance that the following resolution was proposed, seconded, and unanimously passed :

"That the attention of the President and Council of the Royal College of Surgeons be drawn to the fact that the half-yearly meeting of Fellows on the 4th inst. was closed without any discussion being possible in respect to the business on the agenda; and that in the opinion of the Committee of the Association of Fellows such a mode of conducting these meetings would be destructive of the privileges conceded by the Council to the Fellows, and would render the meetings nugatory." It was also agreed that a copy of the foregoing resolution should be forwarded to the secretary of the College with a request that it should be laid before the Council at the next meeting.

It was resolved that the annual general meeting of the Association should take place in November at or about the date fixed for the annual general meeting of Fellows and Members.

This concluded the business of the meeting and the committee adjourned.

THE ROYAL FREE HOSPITAL.

ON Monday, July 22nd, the Prince and Princess of Wales, accompanied by the Princesses Victoria and Maud, visited the Royal Free Hospital for the purpose of opening the new front buildings, which complete the reconstruction of the hospital. The cost of the new buildings, reconstruction of the drainage system, and other necessary improvements has been about £30,000, and accommodation for 160 beds is now provided, with every convenience for the treatment of the sick poor.

Their Royal Highnesses arrived at the hospital shortly after one o'clock, and were received by the Earl of Lathom and the reception committee.

The Earl of Lathom read an address of welcome, in which it was stated that the Royal Free Hospital was founded by the late Dr. William Marsden in the year 1828, and was the first hospital in the metropolis to admit the sick poor without letters of recommendation. Since its foundation its benefits had been extended to more than two millions of patients, who claimed and obtained its aid by reason only of their poverty and suffering. It was the only general hospital in London which had opened its doors to female medical students, and for the past eighteen years it had afforded means of clinical instruction to the students of the London School of Medicine for Women, which now had 150 students. In the year 1842 the hospital was removed to its present site. The north side was rebuilt in 1855 by the Freemasons of England as a memorial to the late Duke of Sussex, and in 1877 the south side was erected and named the "Victoria Wing," in honour of Her Most Gracious Majesty the Queen, who, shortly after her accession to the throne, became its patron, and ordered that the institution should be called the Royal Free Hospital. The erection of the new front completed the work of reconstruction commenced forty-three years since, and the hospital was now thoroughly equipped in every department for carrying on its beneficent work. The new front building was to be called the "Alexandra Building," in commemoration of the day's proceedings.

The Princess of Wales having received a gold key of the new front entrance,

The Prince of Wales said :—"Ladies and Gentlemen, In the name of the Princess, and in my own, I beg to tender Lord Lathom our thanks for the address we have just heard. The Princess desires me particularly to express the great pleasure it gives her to be here to-day and to inaugurate the new wing, which will complete this great hospital. As so many members of my family have been connected with this institution, it is, perhaps, an appropriate occasion for us to be here to-day. I cannot forget that King George IV. and King William IV. were patrons, and the Duchess of Kent and the Queen, before she came to the throne, were also patrons, and that Her Majesty has ever since then taken a most active interest in the prosperity of this institution. I am glad to think that I myself have been connected with this institution since 1863 as vice-patron. I thank you once more for your kind reception to-day, and assure you that we are most glad to come among you, and wish prosperity and success to this excellent hospital. The Princess now desires me to say that she declares the new wing open."

Prayers were then offered by the Rev. C. J. Parker, the chaplain, and the Princess of Wales received purses in aid of the building fund.

In the absence of Sir Gainsford Bruce, Mr. Burt, in a complimentary and gracefully delivered speech, thanked their Royal Highnesses for their presence, remarking that 2000 years ago Alexander the Great offered the citizens of Ephesus all the spoils of his Eastern campaign if they would allow him to have his name placed on the Temple. The citizens were proud and self-sufficient, and refused. Those present had for forty years been building up their temple, which was not so glorious and magnificent as the Temple of Diana, but which was raised to the glory of God and for the healing of the sick, and they were glad to be able to place the name of Alexandra on the final section of the hospital in remembrance of a Royal, gentle, and gracious Princess, whose nobility of character, kindness of heart, and tender sympathy for all the poor, sick, and suffering were known to all the world.

After visiting several of the wards and other parts of the hospital their Royal Highnesses left by the main entrance amidst cheers from the large crowd which had assembled outside.

THE MIDWIVES REGISTRATION ASSOCIATION.

WE have been desired by the secretaries of this Association to insert the following letter, that it may reach the eyes of those whom their notices have perhaps failed to reach :—

"DEAR SIR,—If you are in sympathy with the principle of registration of midwives please attend the meeting in Exeter Hall on Tuesday, July 30th, at 2.30, to vote, or to speak and vote, against the motion standing in the name of Mr. Lawson Tait, and subjoined, which will be taken in the discussion on the report of the Council of the British Medical Association produced to that meeting.

"Your presence is urgently requested.

"Yours truly,

"R. BOXALL, M.D.,

"F. R. HUMPHREYS,

"Honorary Secretaries, Midwives Registration Association."

Mr. Lawson Tait's motion to be seconded by Mr. Colin Campbell :—

"That we, the Members of the British Medical Association, while anxious to improve the training and supervision, and, if need be, to support a practical scheme for the registration of medical, surgical, and midwifery nurses, emphatically condemn any proposal which has for its object the formation of a class of medical or surgical or midwifery practitioners other than those recognised under the Medical Act, 1886, as now existing. We protest against the Midwives Registration Bill because it proposes to establish a class of midwifery practitioners who would be very incompletely trained in midwifery, and entirely uninstructed in medicine, surgery and pharmacy—a matter of supreme importance in midwifery practice. We, therefore, instruct the Council and the Parliamentary Bills Committee to use every means to oppose

any Bill which proposes to give to persons registered under it power to conduct on their sole and independent responsibility any midwifery practice without the guarantee of a complete curriculum and qualification. That this Association recommends a sum not exceeding £1000 be expended for the purpose of opposing any such Bill."

THE SOCIETY OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE COUNCIL OF THE COLLEGE.

As stated in our last issue the Council has appointed the same committee which recently received a deputation of Fellows on the subject of the proposed changes in the Charters to receive a deputation of Members with reference thereto. The deputation will attend to-day (Friday) and the following are the amendments to the Charters which the Society of Members will advocate:—

1. That no alterations in the constitution and external relations of the College shall be effected without the consent of the corporation convened to discuss such alterations.

2. That a statutory annual general meeting be held of the corporation, to which the Council shall present a report of its proceedings during the past year, together with a duly audited account of the income and expenditure of the College; this report must be submitted for the approval of the meeting and formally adopted.

3. That the number of the Council be increased to thirty-two, and that eight of these shall be Members (who are not also Fellows) and shall be elected by the Members only.

4. Provided that no Member who has not been a Member for twenty years shall be eligible for a seat on the Council.

5. That the same by-laws and regulations which are at present in force for the election and admission of Fellows to the Council shall govern the election and admission of Members, the word "Member" being substituted for "Fellow" throughout.

6. That of the eight members first elected on the Council, two shall retire annually in rotation, commencing with those two who have received the lowest number of votes, but that these shall be immediately eligible for re-election; after the end of the fourth year, when the eight members first elected on the Council shall all have been retired, the two members to go out of office annually shall be those two who have been longest on the Council without re-election.

The deputation will further support the election of the President, as at present, from and by the enlarged Council.

We are informed that the committee of the society regard the first three clauses as the essentials of their proposal; and that they bring forward the remainder, as the absence of any detailed scheme has on previous occasions been made a subject of complaint.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Birmingham Urban Sanitary District.—Birmingham ranks in the matter of population as the fourth largest town in England including London, the only two provincial towns exceeding it being Manchester and Liverpool. Estimated to the middle of 1894 the population of Birmingham amounted to 492,301, and the number of persons per acre to 38·7. Average density of population goes, of course, for very little without detailed information as to local distribution, as one area may be much overcrowded and another almost unpopulated. It may be mentioned, however, that the density of population in Liverpool amounts to 97·3, in London to 58·2, and in Manchester to 40 3 persons per acre. Dr. Alfred Hill has been able in his current annual report to supply death-rates for the several wards in the city, the highest (St. Mary's) being 26·3 and the lowest (Edgbaston and Harborough) 13·4 per 1000. The infantile mortality for the year was 164 per 1000 births, as against rates of 179 and 174 for Liverpool and Nottingham respectively. The zymotic death-rate for 1894 was 2·4 per 1000, a rate comparing favourably with the average of the last eight years; but in the matter of enteric fever the report tells us that the cases notified were more numerous than in any year since the introduction of notification. As bearing upon this question it may be remarked that more than half the closet accommodation of Birmingham is on the conservancy system, and Dr. Hill estimates that the incidence of typhoid fever was nearly half as great again upon houses provided with pan-privies as upon those provided with water-closets. There were no less than 2074 cases of small-pox notified in Birmingham during 1894, figures that show that the epidemic was much more severe than that of 1883–84, but less so than the one culminating in 1874. Coming now to the question of vaccination, Dr. Hill reports that of the 2074 cases notified, 1769 were vaccinated, 224 unvaccinated, and 81 doubtful as to vaccination. The following table shows the fatality-rate among the three classes:—

	No. of cases.	No. of deaths.	Proportion of deaths to cases.
Vaccinated	1769	77	4·4 per cent.
Unvaccinated	224	75	33·5 ,, ,,
Doubtful	81	13	16·0 ,, ,,

We also furnish for the information of our readers the accompanying table taken from Dr. Hill's report, which shows the incidence of the disease on the several age periods. Dr. Hill observes that he has not calculated the percentages on less than 10 cases. The table in the main explains itself, and it will be seen that among the 241 vaccinated patients under fifteen only 1 died, a boy whose attack was complicated with scarlet fever; while among the 152 unvaccinated cases at the same age periods no less than 51 died. In other words, the fatality-rate among the vaccinated was 0·5 per cent., that among the unvaccinated 33 per cent. In face of figures such as these, showing the enormous protection afforded to our infant population by vaccination, who would wish to be responsible either directly or indirectly for the abolition of compulsory vaccination, unless, indeed, it be considered desirable to reduce the infant population?—

Ages.	Vaccinated.			Unvaccinated.			Doubtful.		
	Cases.	Deaths.	Case mortality per cent.	Cases.	Deaths.	Case mortality per cent.	Cases.	Deaths.	Case mortality per cent.
Under 1 year...	0	0	—	41	32	78	0	0	—
Between 1 and 5 years	5	0	—	38	13	34	6	0	—
Between 5 and 15 years	236	1	0	73	6	8	14	1	7
Between 15 and 25 years	707	13	2	38	8	21	19	1	5
Between 25 and 45 years	689	52	8	25	12	48	28	8	29
Between 45 and 65 years	119	9	8	7	2	—	12	2	17
65 years and upwards	13	2	15	2	2	—	2	1	—

Salford Urban Sanitary District.—This important county borough has a population, as estimated to the middle of 1894, of 205,828. The mean density of the population is equal to 39 8 persons per acre, but the ward density varies from 116 4 in Greengate to 21·9 in Pendleton. The general death-rate of the district for 1894 was 20·9 per 1000, a rate lower than any recorded during the last thirty-four years. In respect to district mortality rates there was an all-round fall on those for 1893, that for Greengate being 26·4 per 1000, and that for Broughton 16·5. There was in 1894 a very material reduction in the infantile mortality—i.e., it was but 174 per 1000 births, as compared with a quinquennial average of 194. An unsatisfactory feature in the birth-rate was a rise in the percentage of illegitimate births. As regards zymotic diseases, it is gratifying to note a decline in the mortality from diphtheria. Mr. Charles Paget refers in his report with much satisfaction to the fact that a greatly increased percentage of infectious disease cases seek isolation in hospital as compared with former years. Among the cases sent into hospital during the year under review were 31 in which the diagnosis was erroneous, and in this connexion it is very interesting to find that the percentage of erroneous diagnoses ranged from 8 6 in Greengate district to *nil* in the Broughton district. There were 35 cases of small-pox notified during 1894, the fatality rate among the 4 unvaccinated cases being 25 per

cent., that among the doubtfully vaccinated cases 50 per cent., and that among the 29 vaccinated cases *nil*. A model lodging-house has been completed in Salford, and is proving, Mr. Paget reports, a great success. Male lodgers only are admitted, and each is provided with a separate cubicle. The charges are 4*d*. and 5*d*. per night, or 2*s*. and 2*s*. 6*d*. per week. Only persons of "cleanly and respectable appearance and free from filth and disease" are admitted. In an appendix to Mr. Paget's report is a copy of the general regulations appertaining to sanitary inspectors, and we notice with satisfaction the following paragraph: "The Health Committee wish it to be distinctly understood that every inspector is expected to do his duty with absolute impartiality. The committee undertake that no inspector shall suffer in any way from discharging his duty or reporting defects in property belonging to persons of position and influence."

Newcastle Urban Sanitary District.—In connexion with the relative incidence of enteric fever on households provided with water-closets on the one hand and pails on the other, Dr. Armstrong reports that during 1893 there were 0·3 per cent. of the former houses invaded, as against 0·6 per cent. of the latter. Commenting upon the number of deaths from scarlet fever during 1894 Dr. Armstrong observes that the total mortality from this disease at the present time is almost insignificant as compared with the returns of some former epidemic years, the disease having, he remarks, during the last quarter of the century been undergoing a gradual change of type from severe to mild. Instead of a fatality rate of 25 or 30 per cent., which was occasionally observed in former years, there was during 1894 one of but 3·3 per cent. It is probable, however, that together with a change of type in the disease there have been, owing partly to notification and partly to a better knowledge of the natural history of the disease, more mild cases brought to light.

Norwich Urban Sanitary District.—During the first three weeks of 1894 the general death-rate of Norwich amounted respectively to 37·5, 61·0, and 43·0 per 1000, rates which led the Local Government Board to require from Dr. Cooper-Pattin a special report. He considered that Norwich contained more inhabitants at and over sixty-five years of age han any other city or town of the same population, and the excessive death-rate he regards as being due to the effect of the influenza and the sudden variation of temperature which took place during the weeks in question. In dealing with the influences favouring the spread of scarlet fever Dr. Cooper-Pattin records that the headmistress of a certain school, who had contracted scarlet fever from one of her pupils and was isolated in the fever hospital, occupied her time to such good purpose as to become quite an adept at the diagnosis of the disease; and since her return to the school her freshly acquired knowledge has been turned to excellent account. The Norwich Fever Hospital accommodation is, it appears, insufficient for the demands likely to be made upon it, and in advising the enlargement of the building Dr. Cooper-Pattin observes that without the capacity for quickly extending its resources a fever hospital cannot do its best work. There is no provision for cases of enteric fever in the Norwich Fever Hospital, and in advocating such provision he states that he has been most painfully impressed by the unfavourable surroundings amid which he has found typhoid fever being treated in the dwellings of the poor. As he observes, "Within the cramped and narrow limits of a poor man's home typhoid fever becomes easily transferable from person to person." Notification has, he reports, brought to light many insanitary conditions, and he records that during his period of office no less than 1000 houses have had their sink-pipes disconnected with the sewers. In 1893 an offer was made to gratuitously disinfect the rooms &c. in any case where a tuberculous patient had resided, but it speaks badly for the appreciation by the public of this offer to have to record that during 1894 in only five instances was advantage taken of it. In the appendix to his report Dr. Cooper-Pattin inserts a paper on the Tuberculoses in England and Wales, with special reference to their prophylaxis, which was contributed to the State Medicine Section of the Eighth International Congress of Hygiene and Demography held at Budapest last year.

Derby Urban Sanitary District.—Mr. W. Iliffe records in his annual report an instance of the difficulty which may be encountered in enforcing dual notification. Under the Derby Improvement Act, 1879, it is enacted that the person having control of the building in which a case of infectious disease occurs shall, "as soon as he shall become aware of" the existence of the case, notify it to the medical officer of health. In the instance in question it was proved that the mother had acknowledged her child to have had a rash and sore throat, and that she thought it might have been scarlet fever; a possibility which she had apparently discussed with a neighbour whose child subsequently developed scarlet fever and died. When Mr. Iliffe visited the house he found the child soaking its legs and feet in hot water—in order, the mother admitted, to hasten the peeling, which at the time seems to have been profuse. In spite of all the foregoing facts, the magistrates were not satisfied that the mother had "become aware" of the existence of the disease. Mr. Iliffe thinks that the Derby Improvement Act requires amendment, and he suggests that instead of the words "so soon as he shall become aware of," the words "if he have reasonable cause to suspect" be substituted. There were 104 cases of enteric fever notified in Derby during 1894, the cases occurring in eighty-nine houses. In eighty houses there were single cases, in six 2, in one 3, in one 4, and in one 5. Mr. Iliffe regards the comparatively few houses in which the disease spread as an instance of the care which was taken with regard to the carrying out of the printed directions left at every house in which a case was reported. The dates on which the second and subsequent cases occurred in houses invaded by multiple attacks is not furnished, but it is to be inferred that the necessary incubation periods intervened. There always seems to us, however, to be a difficulty in eliminating a common source of infection in cases such as those referred to. The general death-rate of Derby for 1894 was 15·0 per 1000, the lowest yet recorded, and a rate which for the year in question places Derby third on the list of the large towns, Croydon having a rate of 13·2 and Leicester one of 14·7.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6267 births and 4446 deaths were registered during the week ending July 20th. The annual rate of mortality in these towns, which had increased in the five preceding weeks from 15·4 to 19·9 per 1000, further rose last week to 21·9. In London the rate was equal to 23·7 per 1000, while it averaged 20·6 in the thirty-two provincial towns. The lowest rates in these towns were 10·5 in Brighton, 10·9 in Croydon, 11·7 in Halifax, 12·1 in Huddersfield, and 12·3 in Bristol; the highest rates were 25·9 in Preston, 26·2 in Leeds, 26·8 in Norwich, 27·5 in Salford, and 30·3 in Liverpool. The 4446 deaths included 1137 which were referred to the principal zymotic diseases, against 665 and 877 in the two preceding weeks; of these, 798 resulted from diarrhœa, 138 from measles, 72 from whooping-cough, 67 from diphtheria, 39 from scarlet fever, 23 from "fever" (prinpally enteric), and not one from small-pox. No fatal case of any of these diseases occurred last week in Huddersfield; in the other towns they caused the lowest death-rates in Bristol, Portsmouth, Halifax, and Blackburn, and the highest rates in Salford, Leicester, Liverpool, Leeds, and Preston. The greatest mortality from measles occurred in Plymouth, Manchester, Newcastle-upon-Tyne, and West Ham; from whooping-cough in Birkenhead, Liverpool, and Gateshead; and from diarrhœa in Liverpool, Bolton, Bradford, Salford, Leicester, Leeds, and Preston. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 67 deaths from diphtheria included 39 in London, 5 in West Ham, 5 in Birmingham, and 3 in Cardiff. No death from small-pox was registered either in London or in any of the thirty-two large provincial towns. There were 89 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, July 20th, against 34, 42, and 71 at the end of the three preceding weeks; 23 new cases were admitted during the week, against 25, 17, and 36 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2267, against 1894, 2044, and 2241 on the three preceding Saturdays; 220 new cases were admitted during the week, against 319, 311, and 342 in the three preceding weeks. The deaths referred to

diseases of the respiratory organs in London, which had been 160 and 187 in the two preceding weeks, further rose to 193 last week, and were 14 above the corrected average. The causes of 54, or 1·2 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Nottingham, Bradford, Newcastle-upon-Tyne, and in twelve other smaller towns; the largest proportions of uncertified deaths were registered in Brighton, Birmingham, Liverpool, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the three preceding weeks from 19·2 to 20·3 per 1000, declined again to 18·2 during the week ending July 20th, and was 3·7 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·4 in Edinburgh and 15·9 in Dundee to 21·8 in Paisley and 22·6 in Greenock. The 526 deaths in these towns included 61 which were referred to diarrhœa, 12 to whooping-cough, 8 to measles, 6 to scarlet fever, 3 to "fever," 1 to diphtheria, and not one to small-pox. In all, 91 deaths resulted from these principal zymotic diseases, against 98 and 121 in the two preceding weeks. These 91 deaths were equal to an annual rate of 3·2 per 1000, which was 2·4 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of diarrhœa, which had risen from 25 to 72 in the five preceding weeks, declined again to 61 last week, of which 33 occurred in Glasgow, 10 in Dundee, 8 in Paisley, and 4 in Greenock. The deaths referred to whooping-cough, which had been 10 and 18 in the two preceding weeks, declined to 12 last week, and included 6 in Glasgow. The 8 fatal cases of measles showed a further decline from the numbers recorded in recent weeks, and included 4 in Glasgow and 2 in Greenock. The deaths from scarlet fever, which had increased from 1 to 6 in the three preceding weeks, were again 6 last week, of which 2 occurred in Glasgow, 2 in Edinburgh, and 2 in Leith. The 3 fatal cases of "fever" showed a decline of 7 from the number in the preceding week; and the death from diphtheria was recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these eight towns, which had been 79 and 80 in the two preceding weeks, declined to 57 last week, and were 18 below the number in the corresponding week of last year. The causes of 40, or nearly 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 24·9 and 20·0 per 1000 in the two preceding weeks, rose again to 25·1 during the week ending July 20th. During the past three weeks of the current quarter the death-rate in the city has averaged 23·3 per 1000, the death-rate during the same period being 20·9 in London and 16·4 in Edinburgh. The 168 deaths registered in Dublin during the week under notice showed an increase of 34 upon the number in the previous week, and included 21 which were referred to the principal zymotic diseases, against numbers increasing from 9 to 16 in the three preceding weeks; of these, 16 resulted from diarrhœa, 3 from whooping-cough, 2 from small-pox, and not one either from measles, scarlet fever, diphtheria, or "fever." These 21 deaths were equal to an annual rate of 3·1 per 1000, the zymotic death-rate during the same period being 6·5 in London and 1·7 in Edinburgh. The fatal cases of diarrhœa, which had steadily increased from 3 to 10 in the four preceding weeks, further rose to 16 last week. The 3 deaths referred to whooping-cough exceeded the number recorded in any recent week, while the 2 fatal cases of small-pox corresponded with the number in the preceding week. The 168 deaths in Dublin last week included 47 of infants under one year of age, and 34 of persons aged upwards of sixty years; the deaths of infants considerably exceeded those recorded in any recent week, and the deaths of elderly persons also showed a slight increase. Eight inquest cases and 7 deaths from violence were registered; and 40, or nearly a fourth, of the deaths occurred in public institutions. The causes of 13, or more than 7 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL MAJOR has arrived at Singapore, and taken over Medical Charge. Surgeon-Lieutenant-Colonel Chapman, retired pay, has been appointed to Lincoln. Surgeon-Major Thiele has been granted sick leave from Malta. Surgeon-Captain Hickson has arrived in England from the Cape, and Surgeon-Captain Duggan has embarked for the West Coast of Africa. Surgeon-Captain Corkery has been transferred from Gravesend to Reading.

ARMY MEDICAL STAFF.

Surgeon-Colonel Samuel Archer is placed on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen has approved of the following promotions among the officers of the Indian Medical Services:—*Madras Medical Establishment:* Surgeon-Majors to be Surgeon-Lieutenant-Colonels: George Tucker Thomas, Arthur James Sturmer, and Archibald Adams, M.D. To be Surgeon-Major: Surgeon-Captain Arthur Owen Evans. *Bombay Medical Establishment:* Surgeon-Majors to be Surgeon-Lieutenant-Colonels: Arthur Henry Coles Dane, M.D.; John Philip Greany, M.D.; George Edward Elton Burroughs; and James McCloghry. Surgeon-Captains to be Surgeon-Majors: Mackintosh Alexander Thomas Collie and William Henry Quicke. Her Majesty has also approved of the retirement from the service of the undermentioned officers:—*Madras Medical Establishment:* Surgeon-Colonel A. Porter, M.D.; Brigade-Surgeon-Lieutenant-Colonel Arthur Luke Hackett; Brigade-Surgeon-Lieutenant-Colonel Patrick Richard Martin, M.D.; and Surgeon-Major Donald Elcum. *Bombay Medical Establishment:* Surgeon-Lieutenant-Colonel George Edward Elton Burroughs. Surgeon-Captain W. H. B. Robinson, 34th Bengal Infantry, is appointed to Medical Charge of the British Agent's Escort, Gilgit. Surgeon-Captain W. C. Sprague is appointed to officiate in Medical Charge, 13th Bombay Infantry, at Aden, during the absence of Surgeon-Lieutenant-Colonel S. B. Haliday, or until further orders. Surgeon-Major W. H. Neilson (Madras), on return from garrison duty, is reappointed to officiate as Agency Surgeon at Alwar until further orders. Surgeon-Lieutenant-Colonel Henry Hyde (Madras) retires from the service subject to Her Majesty's approval.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant William George Creswell, M.D., has been promoted to Surgeon-Captain.

VOLUNTEER CORPS.

Artillery: 8th Lancashire: Surgeon-Lieutenant W. McClelland, M.B., resigns his commission. *Rifle:* 2nd (Hertfordshire) Volunteer Battalion the Bedfordshire Regiment: Henry Ashton Rudyard, Gent., to be Surgeon-Lieutenant. 1st (Brecknockshire) Volunteer Battalion the South Wales Borderers: Surgeon-Major P. E. Hill to be Surgeon-Lieutenant-Colonel. 1st Tower Hamlets: Alfred Croudson Tunstall, M.D., to be Surgeon-Lieutenant.

VOLUNTEER INFANTRY BRIGADES.

Forth Brigade: Surgeon-Lieutenant-Colonel P. H. Watson, the Queen's Rifle Volunteer Brigade Royal Scots (Lothian Regiment), to be Brigade-Surgeon-Lieutenant-Colonel. *North Midland Brigade:* Surgeon-Lieutenant-Colonel T. L. Gentles, 1st Volunteer Battalion the Derbyshire Regiment, to be Brigade-Surgeon-Lieutenant-Colonel.

PASTEUR FILTERS FOR THE ARMY OF OCCUPATION IN EGYPT AND INDIA.

About a year and a half ago, a correspondent in Egypt writes, an experiment was made of furnishing some of the English troops in Alexandria with Pasteur-Chamberland filters, and now, after much correspondence, it is confidently hoped that the War Office will allow the exclusive use of these filters in both hospitals and barracks in Cairo and Alexandria. The medical officers advise, the General approves, but the difficulty is to arouse the supine energies of the financial officials in London. At present the barracks are provided with nothing but native earthenware filters, and the patients in hospital are exposed to the dangers of old-fashioned charcoal jars. Soldiers will always continue to drink from unclean supplies while out of barracks, but at present the Government, in

deploring the existence of endemic enteric fever, has no right to cavil at the causes abroad so long as the purest available water is not supplied to the troops when they are in barracks. English soldiers in Egypt require special protection against typhoid fever partly because their racial peculiarities cause them to suffer from diseases from which the population of Egypt seems almost exempt, and partly because for some unknown reason, the deferred age of young soldiers for service in India has not yet been applied to Egypt, and, therefore, the regiments newly arriving in the country are exactly at the time of life when they are most liable to enteric fever. It is well known that the French and German armies have reported on the decrease of typhoid fever after the introduction of such filters as the Pasteur-Chamberland, and, moreover, they have been for some years adopted in the Egyptian hospitals of Cairo and Alexandria. Drunkenness is another of the blots of the English army, and it is very gratifying to know that a measure introduced a year ago has so far been a great success. A lighter and cheaper beer (5*d*. per quart instead of 7*d*.), and much more suitable to the needs of a hot climate, has been furnished by an English brewery, and, after some natural hesitation on the part of the men, it has now become very popular with all ranks. Though actually more beer is consumed in the canteens than formerly, drunkenness and the necessary punishments have considerably diminished. It is, however, open to question whether the authorities are wise in choosing the hour immediately before the midday meal as the one during which the canteen shall be thrown open. The old soldier pretends that he cannot dine until he and his friends have gulped down a gallon of beer, but with the present short service system the State should think twice before it returns to society an individual who has been encouraged to cultivate drinking habits on an empty stomach.

The *Times of India* says: "The Commissioners of Darjeeling have arranged to introduce the Pasteur system filters into their water mains, and though so many thousands and tens of thousands of these filters are in use, it is curious that the largest single installation and the first application of the system to a town supply should be carried out in a small municipality high up in the Eastern Himalayas."

THE FRENCH AND MADAGASCAR.

As might have been confidently anticipated, for it is usual in campaigns of this nature for the casualties from disease and sickness to be excessive in comparison with those received in action, the French expeditionary force in Madagascar has suffered greatly from fever. It has been determined to send a number of invalids to France *viâ* the Red Sea and Suez Canal to Marseilles instead of to the Isle de Réunion as previously proposed. The French press is much dissatisfied with this arrangement, and dwells upon the risk and discomfort which the sick and fever stricken will have to encounter at this season in the Red Sea. No doubt this is a grave consideration, but it is a choice of evils, and we are not at all sure that the French Government are not acting prudently in the course they propose to adopt. A soldier seriously affected or enervated by malarious disease does not recover and become fit for field service for a long time; he needs a complete change of climate and he longs, as a rule, to get home, and not to go to any sanatoria abroad. Of course, where a number of sick are concerned they require to be very carefully inspected before embarking on shipboard in order to guard against those being sent who are unfit to undertake a voyage to Marseilles, on the one hand, and those who do not require it for the recovery of their health, on the other. The transports and troopships for the conveyance of the invalids require to be large, roomy, and well ventilated, and every care should be taken against their being overcrowded—a matter about which the French are not by any means too careful. The organisation of the French Medical Service is very good, and it is well equipped and supplied with the necessary *matériel* for hospital and field service.

THE CHITRAL HONOURS AND REWARDS.

We confess that we are not at all surprised at the expressions of opinion which have been made in the press and military circles at the meagre rewards that have been bestowed on many of those who played a very prominent part in the brilliant siege and relief of Chitral. Colonel Kelly, for example, merited much more than he has obtained. A Companionship of the Bath is, it seems to us, an inadequate reward for the splendid services he performed. It should have been a Knight Commandership, and there are several precedents for the bestowal of this titular distinction upon officers who were not already in possession of the Companionship. Captain Townshend's services in military command of the garrison of Chitral also cannot be said to have been generously rewarded, and we think the same may be said of Surgeon-Major Sir George Robertson, considering the nature of the services he rendered and his grave responsibilities. We are glad to learn from an announcement in the *Pioneer Mail* of the 26th ultimo, that a long list is shortly to be published of native officers and sepoys on whom the order of merit has been conferred for the defence and relief of Chitral, and that the Government of India have been wisely generous in the bestowal of this reward which carries enhanced pay with it. All who took part in this campaign, whether Europeans or natives, did well, and deserve well of the country they served.

THE REBELLION IN CUBA.

In addition to the hard fighting which the Spanish expeditionary forces have had in Cuba, which rendered the despatch of strong reinforcements essentially necessary, the Spanish soldiers have recently suffered much from an outbreak of yellow fever. According to the official telegrams 2900 had been attacked with that disease, with 104 deaths, the remainder recovering. From these numbers it would seem that a great many of the cases were either of a mild character or were not really yellow fever, but other and less fatal forms of fever. Marshal Martinez Campos' force on its way to Bayamo was apparently surprised and attacked by a very large body of insurgents. The Spanish troops are stated to have fought with great valour and to have effected their retreat under cover of several charges made by a body of men under the command of General Santo Cildes, who was killed in one of these charges. Marshal Campos, who has the reputation of being a very able and experienced commander, is stated to have conducted a brilliant retreat with great skill and intrepidity. It seems clear that the rebellion in Cuba is a serious business, which will cost the Spanish Government a good deal of expenditure in men and money to effectually overcome.

CALCUTTA.

The sanitary state of Calcutta does not seem to be at all satisfactory, if we may judge from a recent report by the health officer of that city. The *Times of India* of the 28th ult., in calling attention to the subject, says that the condition of Bombay is a matter of only too frequent comment; but Bombay would seem to be Hygeia itself compared with Calcutta. One of the great evils of the latter city is overcrowding and want of attention to the formation of proper streets and buildings. This is said to be becoming worse every year. The difficulty of cleansing the city and of making any sanitary progress is an increasing one under such circumstances. Dr. Simpson has been representing these and other matters for several years, but it does not appear that he has been successful in getting the municipal authorities to take any practical action. The state of the public health of Calcutta has not been such of late years as to justify the city authorities in their course of inaction—quite the contrary. One of these days there will be some outbreak of epidemic disease on a large scale, and they will then be compelled to do something. What is the good of having an experienced and energetic health officer and of paying him a salary for giving sound advice if there is no intention of following it?

THE MILITIA MEDICAL STAFF CORPS.

The Militia Medical Staff Corps is now under training on the Redan Hill, Aldershot, under the command of Surgeon-Major Collingridge. The three companies—Hampshire, Middlesex, and Surrey—have their full establishment of officers. Two new companies are to be shortly formed which will require four officers. As the pay and allowances amount to about 22*s*. per diem there are likely to be numerous candidates for the commission. Application should therefore be made at once to the commanding officer.

The Maidstone Company of the Volunteer Medical Staff Corps will arrive at Netley on Saturday, Aug. 3rd, for the usual training.

DISTRICT PRINCIPAL MEDICAL OFFICERS IN INDIA.

It has been ruled that a District Principal Medical Officer will move to the hills when the general officer commanding

does so, provided that neither the State nor the clerks are put to any extra expense thereby.

NAVAL MEDICAL DEPARTMENT.

An examination of candidates for ten commissions in the Medical Department of the Royal Navy will be held in the Examination Hall, Victoria Embankment, on Monday, Nov. 4th, 1895, and following days.

The extra pension of £100 per annum due to the Bombay Establishment of the Indian Medical Service for 1895-96 has been allotted to Brigade-Surgeon-Lieutenant-Colonel Colin Wm. MacRury, on his retirement from the service.

Correspondence.

"Audi alteram partem."

"THE CARDIO-VASCULAR CHANGES OF RENAL DISEASE."

To the Editors of THE LANCET.

SIRS,—Before proceeding to comment upon some parts of Dr. Dickinson's interesting and instructive lecture on the above subject I beg to thank him for the generous appreciation of my own work, which he has expressed in the following sentence: "It has been well known since the observation of Sir G. Johnson—which represents a great truth, however it is to be interpreted—that with the chronic granular kidney the arterioles, even to the smallest, become hypertrophied."

I gratefully acknowledge the fact that Dr. Dickinson was one of the first amongst eminent pathologists to publicly express his opinion that what I described as hypertrophy of the walls of the arterioles was really such. That the thickening of the walls is not, as various writers have suggested, a result of "lardaceous degeneration," of a so-called "hyalin-fibroid change," or of any form of "arteritis." There being now a general agreement as to the anatomical facts the question of their interpretation alone remains for discussion. In giving a brief history of former controversies Dr. Dickinson makes the following statement: "Johnson, in upholding the muscular thickening, denied the fibrous, the appearance of which he holds to be delusive and the result of reagents." Now I admit that in my early publications on this subject I directed attention mainly to hypertrophy of the muscular layer of the arterioles; but for a long time past I have recognised the fact that in arterioles thickened by hypertrophy there is an over-growth of all the normal tissues. So in the hypertrophied heart there is an increase not only of muscular fibre, but of all the tissues of which the heart's walls are composed. If Dr. Dickinson will do me the favour to refer to my "Medical Lectures and Essays," published in 1887, he will find that at page 699 I have borrowed his own illustrations to show in an artery from the pia mater in a case of granular kidney "the muscular coat and the adventitia hypertrophied." Then it is not quite correct to say that I ever attributed the *fibrous* appearance to the result of reagents. My contention was that the *hyaline* appearance of the tunica adventitia in the arteries of the pia mater is the result of the glycerine in which they were preserved; and that this is the true explanation of the appearance was proved by the fact that after the reading and discussion of the paper by Sir Wm. Gull and Dr. Sutton at the Royal Medical and Chirurgical Society they both recognised in a specimen which I showed them the hyaline condition which they had described as pathological, the specimen in question being arterioles from the pia mater of a sheep, and the adventitia having been rendered hyaline by acidulated glycerine.

With regard to the seat and nature of the obstruction in the terminal vessels which gives rise to the cardiac hypertrophy, Dr. Dickinson thinks it unlikely that the heart and the arterioles should antagonise each other, yet surely the doctrine of all modern physiologists is that while the heart, assisted by the large elastic arteries, propels the blood onwards, the muscular walled arterioles, by their contraction and relaxation, regulate the blood supply to the capillaries. This apparent antagonism results in harmonious coöperation; so, to compare very great forces with very small ones, the position and movements of the planets are regulated by the marvellous coöperation and equipoise of the opposing centripetal and centrifugal forces. Dr. Dickinson is still inclined to the opinion that the capillaries are, in part at least, the seat and cause of the impeded circulation in renal disease, and he considers that this view receives support from the fact that not only are the walls of the arterioles thickened, but also those of the large arteries, from the aorta downwards. He has carefully measured the actual thickness of the walls and the circumference of numerous arteries from the subjects of granular kidney, comparing them with the corresponding normal arteries, and has tabulated the results. The amount of thickening, though constant, is very small as compared with the very much greater thickness of the arterioles. For instance, the thickness of the normal renal artery, as compared with the artery of a granular kidney, is in the proportion of eighteen to twenty-five. Now, compare this with the arterioles of a granular kidney, which may commonly be seen to be three or four times thicker than the corresponding normal vessels. Dr. Dickinson admits that if the arterial hypertrophy were limited to the smaller vessels the stopcock action might be the cause of the hypertrophy, and surely, by parity of reasoning, the enormous excess of hypertrophy of the arterioles affords conclusive evidence of the long-continued over action of these vital stopcocks. At the present day it will scarcely be contended that the great hypertrophy of the arterial walls is caused by an imaginary impediment in the thin-walled capillaries which they supply. That, indeed, was the explanation which I suggested forty-five years ago, in a paper which was published in the thirty-third volume of the Royal Medical and Chirurgical Society's Transactions. The excuse for my erroneous physiology is that the paper in question was written about two years before the publication of the earliest of M. Claude Bernard's epoch-making experiments on the vaso-motor nervous system.

The thickening and dilatation of the larger arteries which have long been recognised as clinical facts, and which have now for the first time been measured, are just such conditions as might have been expected to result from the strain to which they are subjected between the hypertrophied left ventricle behind and the hypertrophied arterioles in front. If the walls of arteries which are exposed to such high pressure did not become strengthened by hypertrophy, the inevitable result would be a much more frequent occurrence of disastrous dilatation and rupture than is actually found to happen.

The theory of capillary obstruction, apart from inflammation, which is not here in question, was plausible enough in the days of Dr. Alison and Dr. John Reid, but since the discovery of the structure and function of the arterioles and of the vaso-motor nervous system the hypothesis in question, unsupported as it is by facts, has been shown to be superfluous and untenable. The function of the arterioles and of the capillaries respectively is as different as is the structure of their walls. This is stated with characteristic clearness in the following extract from Professor Huxley's "Elementary Physiology": "While the small arteries lose the function which the capillaries possess of directly irrigating the tissues by transudation, they gain that of regulating the supply of fluid to the irrigators or capillaries themselves. The constriction or dilatation of the arteries which supply a set of capillaries comes to the same result as lowering or raising the sluice-gates of a system of irrigation canals." It will be seen that Professor Huxley's comparison with the action of "sluice-gates" and mine with that of "stopcocks" express an identity of view as to the regulating function of the arterioles, this view of their function being, as I believe, that of all modern physiologists.—I am, Sirs, yours faithfully,

Savile-row, July 22nd, 1895. GEORGE JOHNSON.

"SPECIALISM IN MEDICINE."

To the Editors of THE LANCET.

SIRS,—To be able to claim membership of the medical profession is to me the highest honour. In my estimation the profession stands second to none, for I know that beyond any other it is composed of men leading lives of true self-sacrifice and devotion to duty. It is with these feelings and with a full sense of the responsibility of taking such a position that I venture confidently to impugn some of the main statements in the leading article in your issue of July 20th. Dealing with the question of the abuse of specialism, you inquire whether quackery occurs among any section of specialists. You ask, "Are needless operations performed

for fees? Are methods of treatment urged upon patients for commercial rather than pathological reasons?" Your answer is that "practically neither abuse exists."

Not a month, hardly a week, passes that I do not learn the authentic details of cases of quackery by a class of practitioners, mostly specialists; and I venture to affirm without fear of contradiction that there is not to be found a single consultant, specialist, or general practitioner of any experience who cannot from personal knowledge vouch for the fact that there exists in London a considerable number of men, mostly specialists, who show by their methods that their object is not to obtain fair remuneration for honest work, that their aim before all things is not to do the best for the patient, but that their paramount consideration is the making of money, regardless of the injury inflicted upon the victims who place themselves with confidence in their hands. That quackery outside the profession—practice by unqualified pretenders—does no harm from any point of view to the legitimate practitioner is, I believe, capable of proof. It is quackery within which does harm. Of those who fall into the hands of qualified quacks a large number never recognise that they have been victimised, but many do; and these and their friends are too often led to look with suspicion on the whole body of medical men, if they do not regard them as, without exception, on a level with the individuals by whom they have been misused, and whom they had been led to believe were eminent representatives of the profession.

I am, Sirs, your obedient servant,

Cavendish-square, July 20th, 1895. HENRY SEWILL.

THE PROFESSION AND MEDICAL AID SOCIETIES.

To the Editors of THE LANCET.

SIRS,—We are directed to inform you that a meeting of the medical profession in Eastbourne, called by the invitation of the local medical society, has been recently held for the purpose of considering proposals for the formation of a Provident Medical Association, in order to combat the growing evil of commercial "medical aid" societies in this town. At the meeting it was resolved that an association should be started upon the following lines: (1) All duly qualified resident medical men, not practising as homœopaths, to be eligible for the acting staff, subject to the approval of the committee; (2) the committee to be exclusively a professional one, consisting of the staff and a certain number of members appointed by the Eastbourne Medical Society; (3) a wage-limit or other check to abuse to be adopted; and (4) the profits, after payment of working expenses, to be divided amongst the acting staff proportionately to the number of members upon their respective lists.

The following resolutions were also adopted:—1. That every medical man in Eastbourne be invited to sign a statement agreeing neither to accept any appointment himself in any "medical aid" or similar society, nor to have any professional intercourse whatsoever with any medical practitioner holding any appointment in, or associating himself in any way with, any of the so-called "medical aid societies," or with any similar company so long as the methods adopted by these societies include (*a*) canvassing for members in the interest of individual practitioners; (*b*) the virtual "sweating" of their medical officers by the inadequate remuneration for the work done. 2. That, considering the necessity for permanently maintaining united action on the part of the profession towards these medical aid societies, this meeting approves the plan of requesting the committee of the Eastbourne Provident Medical Association to depute one of its members to call upon every new medical practitioner settling in Eastbourne, with the object of warning him against the methods of the medical aid societies and of courteously inviting his signature to the above agreement. 3. That the British Medical Association be requested to approach the Deans of the various medical schools in the United Kingdom, and urge them to point out to their senior and recently qualified students—(*a*) the very objectionable character of these medical aid societies; (*b*) that the Royal College of Surgeons of England and the Royal College of Physicians of Ireland have both expressed in clear terms their disapproval of their diplomates associating themselves with these societies; (*c*) that the committee appointed by the General Medical Council to inquire into the working of these societies in relation to the medical profession unanimously condemned their methods; and (*d*) that by accepting appointments in these societies medical practitioners will cut themselves off from their professional brethren.

It was further agreed to send copies of these resolutions to the medical journals in the hope of warning inexperienced junior practitioners who might otherwise accept posts under medical aid societies in Eastbourne. The following practitioners signed the agreement embodied in the first resolution:—

Adams, James,
Barnes, A. R.,
Browne, D. Matthews,
Cameron, Chas. H. H.,
Colgate, Henry,
Daly, Wm. J.,
D'Esterre, J. N.,
Downes, E.,
Elvy, Frank,
Ewart, J. H.,
Farnell, H. D.,
Frazer, Kenneth,
Habgood, Henry,
Harding, C. O'Brien,
Harper, A.,
Hayman, Charles N.,
Hinds, H. A.,
Holman, Henry J.,
Holst, Otto,
Jackson, G. H.,
Jones, J. Talfourd,
MacQueen, Thos.,
Marsdin, Fredk.,
Pollock, William,
Roberts, Astley,
Roberts, Charles,
Rook, A. Edw.,
Sherwood, Arthur P.,
Sieveking, A. R.,
Skinner, George P.,
Smith, Wm. Muir,
Taylor, A. Wheeler,
White, Rich. Watts,
Whitney, Neville S.,
Willett, Edmund.

We are, Sirs, yours faithfully,

J. H. EWART,
President Eastbourne Medical Society.
A. HARPER,
Hon. Sec., *pro tem.*, Eastbourne Provident Medical Association.

Eastbourne, July 22nd, 1895.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE PORTRAIT OF SIR JOSEPH LISTER.

To the Editors of THE LANCET.

SIRS,—The Fellows and Members of the Royal College of Surgeons of England have just received a circular headed "Sir Joseph Lister (College of Surgeons) Portrait Fund," inviting subscriptions, and stating that "Mr. W. W. Ouless, R.A., has, at the request of the committee, undertaken to paint the portrait." This committee appears to be practically self-elected, and I would ask if such a committee, however eminent individually, should have proceeded so far without first having a mandate from the general body of subscribers. Everyone must feel that the artist does not live to whom it would not be an honour to paint the portrait of Lister, which is to hang beside Reynolds's John Hunter, and I would suggest that this honour ought to be given to a painter carefully selected after due inquiry by a committee chosen at a meeting of the general body of subscribers, and conferring with the authorities of the College, whose right and duty it is to have a voice in the matter.

I remain, Sirs, your obedient servant,

Grosvenor-street, W., July 23rd, 1895. C. B. KEETLEY.

"THE DUTIES OF MEDICAL SOCIETIES."

To the Editors of THE LANCET.

SIRS,—My attention has been called to an article in THE LANCET of July 20th commenting, under the above title, upon a case of prolapse of the uterus which I treated by extirpation. Perhaps you will allow me to give a few details of the case. The patient was a single woman thirty years of age. She gave birth to a child five years before coming under my care. The confinement was a troublesome one and was followed by protrusion of the uterus. When I first saw her she was in a deplorable condition. The uterus, much enlarged, was lying between her thighs, and there was complete and extensive prolapse of both bladder and rectum. The perinæum was destroyed and the vulval orifice in consequence very large. A fair trial was made with pessaries without the slightest benefit. The tissues were too much thinned and stretched to make perineorrhaphy at all a hopeful procedure, and I came to the conclusion that extirpation was the only operation likely to be followed by success. The patient soon got well and the result has given her the greatest satisfaction and comfort, and she is now able to earn her own living. I trust the exceptional character of the case may justify the treatment adopted.

I am, Sirs, yours faithfully,

Weymouth, July 23rd, 1895. MACPHERSON LAWRIE.

INFANTRY SWORD EXERCISE AND THE RECENT HANDBOOK FROM THE WAR OFFICE.

To the Editors of THE LANCET.

SIRS,—This handbook of instructions in the use of the sword has just been issued by the War Office. As the document is official and imposes on the British soldier certain methods of attack and defence, it is not out of place to inquire into the soundness of the principles involved in the teaching, both from physiological and practical points of view. The system here ordered for adoption is that of the Italian school, as modified by Cavaliere Masiello of Florence. The Italian system has been weighed in the balances of experience and found wanting; it is now almost universally superseded by the French school. We fail, therefore, to understand why our authorities should have revived a faulty and more or less exploded, method. The position of the body and limbs now recommended (we should say ordered) are essentially faulty, entailing, as they do, unnecessary outlay of muscular power, and leading by their unnatural conditions to rapid nerve-exhaustion. The "guard" itself, with the feet widely separated, "with both shoulders and sword parallel to the directing line," and the attacking arm prone and fully extended, involves an attitude quickly inducing fatigue and unsteadiness, and this without any adequate compensation. The brachial and deltoid muscles get easily tired, the more so as the elbow-joint is fixed as completely as if it were ankylosed, and the suggestion in the handbook that it should "serve as a pivot" is an anatomical impossibility. From such a position it is evident that rapid recovery after the lunge is most difficult, and thus the fencer is exposed to great risk if engaged with an active opponent skilled in the French method. We write as representing the feelings and judgment of many members of the medical profession who are interested in fencing as an amusement and exercise, as well as a discipline for the officers and soldiers of the British Army. That a method so faulty and unsound should be now presented to the British soldier for his instruction and guidance appears to us a measure distinctly retrograde and dangerous.—We are, Sirs, yours faithfully,

I. D. CHEPMELL, M.D.,
G. H. SAVAGE, M.D., F.R.C.P.

July 23rd, 1895.

VOLUNTEER MEDICAL STAFF.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to say that through the courtesy of the Council of the British Institute of Public Health, arrangements have been made this year, as in previous years, for the officers of the Volunteer Medical Staff to dine together on the occasion of their annual banquet, on Wednesday, July 31st, at 7 P.M., in the King's Hall of the Holborn Restaurant. A large number of distinguished officers and guests have been invited by the Council, and it is hoped H.R.H. the Duke of Cambridge will also be present; and as this is probably the last public occasion at which His Royal Highness will appear before his retiral, it is believed that a large number of Volunteer medical officers would like to attend. Tickets may be obtained of the Secretary, Mr. C. A. James, at the address given below.

I am, Sirs, yours faithfully,
W. GUYER HUNTER K.C.M.G., M.D., &c.,
Chairman of Council of the Volunteer Medical Association.

20, Hanover-square, W., July 22nd, 1895.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Poor-law Relief in Manchester.

MR. GUILMETTE, the superintendent of the relief department of the board of guardians, has issued his annual report for the year ending March 23rd last. In some respects it is encouraging, especially if we bear in mind the long-continued depression of trade from which this district has suffered. During the half-year ending September, 1870, the total number of in-door poor relieved was 7388, and in the corresponding half-year of 1894 they numbered 7437, an increase of 85 persons, or 1 per cent. During the same half-years respectively the total of the out-door poor of the township numbered 13,992 and 2474, a decrease of 82 per cent. On Jan. 1st, 1871, 60 per 1000 of the inhabitants of the township were in receipt of relief, while on Jan. 1st, 1895, the proportion had fallen to 31 per 1000, a decrease of nearly 50 per cent. On Jan. 1st last the number of in-door poor was 3667, equalling the population of a large village or small town, and the duty devolving on the guardians for the efficient oversight of this community, its provisioning, the treatment of its sick, the education and starting in life of its young, and the employment in suitable occupations of its adults, must be considered a work of some magnitude and importance. Of this large number there were not 50 men at the very outside who could be called "able-bodied" "in the sense of being possessed of that muscularity which would fit them to successfully compete for work with the average out-door labourer," and many even of these, from having led roving, unsettled lives or from drinking habits, "would be unlikely to find a regular place of work congenial." The term "able-bodied" is one of wide application and includes many cases which the non-official mind would certainly place in another category. "The 'able-bodied' also include 928 persons suffering from temporary sickness, and who are laid up in bed under the care of the medical officers. They further include persons who, being neither properly 'sick' nor 'infirm,' and able to do a little light jobbing about, are nevertheless in reality shut out from engaging in most of the active occupations of life—those who suffer from occasional fits, are partly blind, minus an arm or leg, of weak intellect, or are the victims of congenital or acquired physical or mental defects." There are also in the workhouse 269 lunatics, imbeciles, and idiots (exclusive of 325 in asylums), and 1142 classified as "infirm"—these include the sick and bedridden, the paralysed, the very feeble and helpless, &c. There are also 740 children under the care of the guardians, of whom the majority are being trained and educated at the Swinton Separate Schools. Last year there was an enormous influx of vagrants, no fewer than 52,319 having been admitted into the tramp wards. These numbers so tax the accommodation that the labour test cannot be strictly applied, nor the usual period of detention enforced. This soon becomes known, "with the result that whilst the numbers steadily go up the power to apply deterrent treatment steadily goes down." The report goes on to show how difficult it is to give help to the deserving or destitute without some accompanying evil, for it says: "There is little doubt that a number of those who used the tramp wards last winter were attracted to the district by the advertisement of free meals and the extensive distribution of private charity during the great frost." The increase in the number of tramps is a serious matter. Five years ago there were only 14,182. They come not only from the lower classes but from the social failures of those above them, who from faults and failings of character and conduct have drifted down among the homeless and destitute. Mr. Guilmette sees great difficulties in any attempt at classifying the deserving and the worthless. "There are great dangers of errors of discrimination; there is the enmity, falsehood, or ignorance of one informant and the favourable prejudice and partiality of another; the absence of any independent testimony in many cases, the obvious contradiction which a man's appearance and demeanour not infrequently give to his own account of himself and that of his friends,—all these present almost insurmountable obstacles in the way of carrying out a thorough system of classification of character amongst the aged poor in such a township as that of Manchester."

Salford Sewage.

Salford has had much trouble over her sewage, and seldom is a good word said for her, so it is not to be wondered at that various comments have been made as to her policy of buying a steamer in order to carry the sewage sludge out to sea. Theoretically it should go back to the land, but it is a costly matter and by no means easy to get it there. The one good deed she does ought to be mentioned. The steamer takes out 600 tons of liquid sewage three or four times a week and discharges this into the sea, to the bewilderment and injury no doubt of the fish that happen to be caught by this deluge of filth. On the return trip, however, the ballast-tanks are filled with sea water, which is discharged into the canal at Modewheel. Three or four hundred tons of sea water three or four times a week will not make much change in the condition of the

canal, but every little helps, and it is said to be "a refreshing sight to see the stream of clear sea water pouring into the murky canal from the sides of the steamer." The *Manchester City News* seems to think that the Local Government Board should not insist on filtration being applied to the Manchester and Salford sewage, "seeing that the effluent is turned into a navigable canal," and that it should only require it to be innocuous. It says that the cost of treatment will be trebled by the filtration process, and asks whether a local body should be compelled to produce an effluent many degrees purer than the stream into which it is turned. If this principle were acted on there would be little hope for the purification of our rivers. An experiment in filtration is being made at Salford on a small scale by two methods. One is the Riddel process, by which the effluent, first produced by precipitation, is forced by steam and hydraulic power through beds of sand some 3 ft. deep arranged at the bottom of an iron boiler, which has the appearance of an ordinary steam boiler. To treat the 10,000,000 gallons of Salford sewage twelve boilers 30 ft. long and 8ft. deep would be required, and "to cope with the additional volume brought down by a heavy rain would require probably as many more always to be in readiness." The result is said to be excellent, but the question of cost is the difficulty. The other process, devised by Mr. Corbett, the borough engineer, consists of open-air beds or tanks with a layer of sand and gravel, through which the effluent slowly filters. The effluent is "surprisingly clear"; but here again the serious matter is the cost. It would require many acres to treat the ordinary 10,000,000 gallons a day, and as many more acres to deal with a flood. It is said that a very ordinary downpour of rain will raise the quantity to 14,000,000 or 16,000,000 gallons. In the case of Manchester these figures would have to be trebled or quadrupled if she adopted either of these processes.

Mr. Maclaren's Batting Feat.

For the last week or two the stress and turmoil of electioneering struggles have occupied the attention of the Manchester people, to the exclusion of pretty nearly everything else; but Mr. A. C. Maclaren's marvellous innings against Somersetshire has aroused the enthusiasm of the many thousands of our local lovers of cricket. His 424 runs, made in 470 minutes, won the match with 79 to spare, so that the 377 contributed by the other members of the Lancashire team—making the total up to 801—were not required. The quickness and correctness of eye, the instantaneous response of the muscles to the constantly recurring messages flashed to the brain, and the endless repetition of the run "between the wickets," tell a story of muscular and nervous endurance of much physiolcgical interest. Mr. Maclaren was captain of the Harrow team in 1890, and though only twenty-three has captained the Lancashire eleven for the last two years. His scholastic duties—he is now qualifying for a mastership at Harrow—have prevented him playing for his county since the first few matches, but as he will be free to the end of the season he may now, perhaps, play more frequently. I may be permitted to add that he is a nephew by marriage of our distinguished *confrère*, Dr. Leech.

Adult Deaf and Dumb Institute.

The claims of the above charity are not often brought before the public, and it has depended on a small band of yearly subscribers. And yet it does a large amount of good work, for there are in Manchester and the neighbourhood nearly 1000 deaf mutes, to whom its numerous benefits are always open. It occurred to the Lady Mayoress, who takes a warm interest in its welfare, that its funds might be increased by the pleasurable means of a garden party at the Botanical Gardens. The idea culminated in most successful gatherings on Friday and Saturday of the week before last. Large numbers were present on both days, and the pecuniary benefit to the charity will no doubt be considerable, though the actual figures cannot as yet be given. On the Saturday afternoon a large party of the deaf and dumb were entertained at tea by the Lady Mayoress, who afterwards spoke to them, the secretary, Dr. Buxton, acting as interpreter. "The quick apprehension of everything, expressed by a demonstration of smiles and quaint gestures, was extremely touching." It was computed that nearly 12,000 people were present.

Home for Crippled Children.

This institution is a branch of the Boys and Girls Refuges, and, as its name implies, makes those among the waifs who start life under physical difficulties its special care. At present there are between thirty and forty crippled or incurable boys and girls in the home at Cheetham-hill. Many of them are able to pass their time in making articles for the annual sale of work which takes place on their *fête* day, which was held the other week. The Lady Mayoress, who constantly manifests her sympathy with philanthropic work, opened the sale, and there was a large attendance.

High Schools for Girls.

Professor Clifford Allbutt has just paid Manchester a visit, and on Friday last gave an interesting and instructive address in the Free Trade Hall to the pupils of the High Schools for Girls at the distribution of prizes and certificates gained during the year.

July 23rd, 1895.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Retirement of Mr. Macdonald Brown from Surgeons' Hall.

IT will be a surprise to many of Mr. Macdonald Brown's old pupils to learn that he has retired from his position as Lecturer on Anatomy in the Edinburgh School of Medicine, and proposes to devote himself to practice. This change has come as a surprise to those connected with the extra-mural school, as he has been a successful lecturer for a number of years. He is succeeded at Surgeons' Hall by Mr. J. Ryland Whitaker, M.B.Lond., F.R.C.P. Edin., who goes from Minto House, where he had succeeded Dr. Symington. The probabilities are that the teaching of anatomy to men in the extra-mural school will now be confined to Surgeons' Hall and the New School.

The Edinburgh Dental School.

The presentation of prizes in connexion with this school took place last week. The Dean referred to the continued success of the school, and stated that there were thirty-seven students on the working roll. Professor Chiene addressed the students on the career of Robert Nasmyth, the father of Scottish dentistry, because he had made anatomy the basis of his work, and, further, because he was the man who brought to Edinburgh the great John Goodsir.

Close of the Summer Session in Edinburgh.

The summer session, both in the University and extra-mural schools of Edinburgh, was brought to a close last week without any noteworthy incident. The first professional examination at the University is at present going on, and no fewer than thirty female students, it is understood, have entered for it. Most of these have either already qualified in medicine or are senior students of medicine who have had the courage to go back over their old work, prompted by the laudable ambition of obtaining the University degree. One female student has presented herself for the second professional examination, having passed the first in April.

Health of Edinburgh.

During the month of June the total number of deaths were 354, giving a death-rate of 15·52 per 1000, compared with 14·36 for June last year. The average death-rate for the last five years was 16·06.

Health of Aberdeen.

During the week ending July 20th 55 cases of zymotic disease were reported to the sanitary office. This is an increase of 16 on the preceding week. Of whooping-cough there were 41 cases, measles 2, erysipelas 3, and choleraic diarrhœa 1.

Extension of Buildings, University of Aberdeen.

An official statement laid before the executive committee shows that the subscriptions towards this scheme up to April 10th—including £40,000 of grant from Government—amounted to £92,398 odd. The liabilities amounted to £108,124, the cost of sites—namely, £50,011—having unavoidably been heavy. The fine stained glass windows in the Graduation Hall and the clock and finials are to be provided by Mr. Charles Mitchell, LL.D., of Newcastle-upon-Tyne, while the estimated cost of the works already undertaken, and for which the executive committee is responsible, is £78,261. The committee has resolved to appeal to the new Government for a further grant of £20,000, and also to private friends for further contributions, so as to allow the modified scheme to be completed. An effort is to be made to have the front buildings finished with fine-axed stones, which would add greatly to the effect, as the white granite which

is being used looks beautiful when so treated. The gable towards Broad-street of the north wing, and that towards East North-street of the Graduation Hall, will contain large windows and be among the most striking architectural features of the new buildings. The Mitchell Tower, from its great height and its graceful outlines, is regarded with admiration by all visitors from a distance, and it surpasses all other granite structures even in the "Granite City" itself.

The Member of Parliament for West Aberdeenshire.

One of the few members of the medical profession returned to the new Parliament is Dr. Robert Farquharson of Finzean, Aberdeenshire, who has on this occasion increased his majority to 220. Dr. Farquharson has represented West Aberdeenshire since April, 1880. Had it not been for his attitude on the Church of Scotland question, and his recent action in connexion with the proposal to raise the age limit of boy labour for night work in paper mills, it is believed Dr. Farquharson's majority would have been considerably higher.

July 22nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Case of Successful Innominate Ligature.

MR. COPPINGER'S patient, whose innominate artery was successfully ligatured in January, 1893,[1] for the cure of subclavian aneurysm, is now being exhibited in London. The operation was performed at the Mater Misericordiæ Hospital. The man was shown six weeks afterwards at a meeting of the Royal Academy of Medicine in Dublin as a case of successful ligature of the innominate artery, and six months later at Newcastle-on-Tyne as an instance of cure of subclavian aneurysm by simultaneous ligature of the innominate and common carotid arteries. The patient, a man aged fifty-nine, is now (two years and a half after the operation) in good health, and is the only living example as yet exhibited in Europe of cure of subclavian aneurysm by innominate ligature.

Mater Misericordiæ Hospital.

A woman aged twenty-five was recently admitted to this hospital complaining of an abdominal tumour about the size of an infant's head, hard and freely movable. It had existed for two years, and there was no history that the patient had ever suffered from intestinal obstruction. On opening the abdomen Mr. More Madden discovered two enormous enteroliths occupying the cæcum and commencement of the ascending colon. They were successfully removed by incision and the formation of an intestinal fistula.

City of Dublin Hospital: Sessional Examinations.

The gold medal presented by Mr. Wheeler for the best answering in medicine has been won by Mr. William Henry Croly.

The Recent Inquiry on the Belfast Workhouse.

At a meeting of the Belfast Board of Guardians, held on July 16th, a letter was read from the Local Government Board in reference to the inquiry held by their inspector, Mr. Agnew, as to the death of a man on April 25th in the lunatic department of the workhouse. After giving a *résumé* of the evidence[2] the Local Government Board say they are of opinion that the case was one for treatment in the medical wards of the infirmary, as the organic diseases were of a more urgent nature than any epileptic affection, and this is proved by the fact that the patient died from congestion of the lungs three days after admission without any epileptic fit. The Board do not think that in the face of the protest made by the wife of the deceased man the resident medical officers were justified in sending the patient to the epileptic ward of the lunatic department without a previous consultation with the visiting medical staff, and the board are of opinion that in all doubtful cases of mental disease there should be a consultation with the visiting medical officers. The case evidently presented difficulties of diagnosis which could only have been elucidated by careful and detailed examination, and it was due to the patient that such an examination should have been made before sending him to the lunatic department. The board having been informed by their inspector that the epileptic ward is in the lunatic dapartment of the workhouse, and that epileptics, whether sane or insane, occupy the same ward, and that they have the same recreation grounds as the lunatics and idiots, think such an arrangement most objectionable and advise its being discontinued, and that provision should be made in the infirmary for epileptic patients. Further, they recommend that provision should be made for the examination of all patients on admission by setting apart a room for the purpose. The board also think it would be desirable that where a patient is admitted on a medical certificate the resident and visiting medical officers should be handed the certificate for their information and consideration. The guardians appointed a small committee to consider this report.

The Pasteur Institute in Paris.

It does seem a most extraordinary circumstance that no attempt is being made to deal in this country with the treatment of hydrophobia from a preventive point of view. The muzzling of dogs is not by any means enforced, and people bitten by mad dogs are obliged to go to Paris to be treated. At the last meeting of the Belfast Board of Guardians (and similar cases are being constantly reported all over Ireland) the father of a boy aged seven years, who had been bitten by a dog which was said to be mad, was granted a sum of £25 to enable him to take the lad to the Pasteur Institute in Paris. The whole question of the prevention and the treatment of hydrophobia is most discreditable to medical science in the United Kingdom.

Ballysillan Water-Supply.

A deputation from this district having appeared before the Belfast board of guardians and stated that their water-supply was very bad, being drawn from a source out of which cattle and horses drank, in which dogs swam, and children bathed, asked the assistance of the board in helping them to get pure water. While the matter was referred to a committee to consider and report at a later date, it was pointed out that a new special scheme would be costly owing to litigation, it would involve great taxation, and it might not give a continuous supply. The feeling of the board was apparently that a solution of the question would be best found in the proposed extension of the borough of Belfast so as to take in the Ballysillan district, when the residents would get the water supplied by the Water Commissioners, whose new Monson scheme, when completed, would give a never-failing supply.

Curious Nuisance at Bangor, co. Down.

At a special meeting of the Bangor Town Commissioners a deputation appeared and presented a memorial on behalf of residents praying the Commissioners to exercise the powers vested in them under the Public Health Act, and have two sets of hobby horses at present located on the Shore-road removed, as, being contiguous to private residences, they, by the noises caused and the heterogeneous crowds congregated, constituted a nuisance. Dr. Bolton, J.P., as a medical practitioner and as a medical officer of health for the district, made an important statement to the effect that while he thought that in themselves the hobby horses afforded a pleasant, exhilarating, and unobjectionable form of exercise and recreation, he gave it as his opinion that on the present locations the two systems of hobby horses were objectionable and positive nuisances because of their close proximity to dwelling-houses. To people with irritable nerves or shattered nervous systems (and people in such conditions often came to Bangor as a health resort), or to children threatened with some brain disease, or to older people attacked by some feverish illness accompanied with racking headache—to all these the near sounds arising from the steam bands, with the noise of the crowds around, Dr. Bolton thought were injurious and even dangerous. After a prolonged and stormy discussion it was decided by the casting vote of the chairman that the Hon. Somerset Ward be at once approached, and that strong representation be made for the removal of the hobby horses.

Death of Mr. Robert F. Sinclair, M.B., C.M. Edin.

Intelligence has just reached Belfast of the death from pleurisy, after four days' illness, at Brewarrina, New South Wales, on June 2nd, of Dr. R. F. Sinclair. Dr. Sinclair graduated in Edinburgh University in 1881 and for some time practised in Belfast, where he was greatly respected by his medical brethren and by his patients. About six years ago

[1] See Transactions of the Royal Academy of Medicine in Ireland, 1895.

[2] See THE LANCET, June 29th, 1895.

he left Belfast to join other members of his family who had gone to New South Wales, and there he has since practised. Dr. Sinclair's early death is very much regretted by a numerous circle of sincere friends in Belfast.

High Death-rate in Belfast.

At a meeting of the Public Health Committee, held on July 18th, the medical superintendent officer of health (Dr. Whitaker) reported an unusually high death rate—30·7 per 1000, as compared with 17·4 in the corresponding week of 1894. The infant mortality under one year was great, and there were thirty-two deaths from diarrhœa, whilst in the other fifteen urban districts of Ireland the number registered as having occurred from this cause was fifteen.

Resignation of Dr. McNeary of Garvagh.

I am sorry to say that Dr. McNeary has, owing to partial paralysis, found it necessary to resign his appointment as medical officer of the Garvagh (county Derry) dispensary district, a post which he has held for a lengthened period. Indeed, he has been in the service of the Coleraine guardians since he was appointed medical officer of Articlare in 1852. The Garvagh dispensary committee, at their meeting on July 20th, expressed the deepest sympathy with Dr. McNeary in his illness, and recommended the guardians to grant him ample superannuation. This will be settled on Aug. 24th. On Aug. 16th a meeting will be held to appoint his successor.

Sudden Death of one of the Medical Men Imported by the Cork Clubs.

Dr. Joseph A. O'Sullivan died very suddenly last Thursday evening. He was out attending to his duties the previous day, and, as far as the outside public have learned, heart disease, induced by rheumatism, was the immediate cause of death. Last winter he could have been seen in various parts of the city walking in inclement weather, paying visits to his club patients, and no doubt the fatigue he then endured and the wettings to which he was subjected seriously aggravated the rheumatism from which he had previously suffered. He was educated at the Cork Queen's College, being the only one of the four imported medical men who was a native of the city, and was a favourite with his fellow students. He developed a taste for ophthalmic surgery and became a pupil at St. Mark's Hospital, Dublin. He graduated at the Royal University, and afterwards proceeded to London, where he was about to buy a practice, but before the negotiations were quite completed he returned to Cork for a short holiday. The fight with the clubs had then just commenced, and Dr. O'Sullivan's relatives, anxious to have him at home, urged him strongly to accept the club terms, which he did. Readers of THE LANCET will recollect that snowballs were thrown at him by some students of the College, and that the affair was afterwards the subject of an investigation at the police-court. The students, as clearly appeared by the evidence, had only paid him the same unpleasant attention that had been meted out to many other citizens, but he, knowing he occupied an invidious position, believed the attack to be more or less preconcerted and he struck one of the snowballers with a stick. Legal proceedings followed. The clubs were anxious to make capital out of what no doubt was a most objectionable form of sport, but it is fair to Dr. O Sullivan's memory and my very pleasant duty to be able to say that he had no desire to play the part of prosecutor of young men, some of whom had been at one time his fellow-students. In Dr. O'Sullivan the profession has lost a hard-working and able young man, whom circumstances and mistaken judgment placed in most regrettable opposition to the bulk of the profession in his native place, but to whom our recollection will recur not as the over-worked servant of the clubs, but as the popular, socially disposed, and able fellow-student.

July 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Gonorrhœal Salpingitis.

AT the last meeting of the Société Anatomique M. Raymond exhibited a specimen of the above-mentioned disease. The specimen offered all the characteristics to which the speaker had already called attention in his thesis for the M.D. Paris—non-purulence of the ovary and purulence of the tubes. In the specimen shown the fimbriated extremity of the left Fallopian tube was completely closed, whilst the right tube communicated through the same extremity with the pus-laden pouch formed in the peritoneum. This pus and that of the corresponding tube, as well as that of the left tube, contained gonococci. Under the microscope the pus presented all the characters special to its gonorrhœal origin (in the acute stage)—viz., numerous leucocytes without epithelial cells,—in fact, the pus revealed the same characters as that collected from the blennorrhagic urethra. In cases, however, of salpingo-ovaritis due to the streptococcus, the pus contains only a few leucocyte associated with numerous desquamated epithelial cells. In streptococcic salpingitis abscesses of the ovary are frequent, as are also spreading peritoneal lesions.

An Insalubrious Children's Hospital.

Without counting the Hospice des Enfants-Assistés, we may say that Paris is endowed with two great children's hospitals: viz., the Hôpital des Enfants-Malades, in the rue de Sèvres, side by side with the Hôpital Necker—a general hospital—and the Hôpital Trousseau, situated in the rue de Charenton, not far from the Hôpital Saint-Antoine. The Hôpital Trousseau contains 472 beds, and its position in the midst of a dense working-class population keeps its wards and out patient rooms constantly filled. But its alleged unfitness for the purpose of ministering to the requirements of suffering childhood may be judged of by the following strictures passed on it by a municipal councillor, M. Baudin, at a recent meeting of the body to which he belongs: "Quant à l'hôpital Trousseau, je mettrai toute mon énergie à en obtenir la disparition; je vois tous les jours combien il fonctionne mal. C'est un véritable foyer d'infection, et les enfants y sont hospitalisés dans les conditions les plus déplorables, je dirai même les plus homicides. Quand on a demandé aux médecins des hôpitaux si des améliorations pouvaient être obtenues en conservant une partie des bâtiments actuels, tous ont déclaré que l'hôpital Trousseau devait être rasé."

La Guerre à l'Alcoolisme.

The frightful progress made by alcoholic abuse in France is only too apparent to the wideawake observer, and the authorities are beginning to be alive to the warning uttered by the Academy of Medicine during a recent discussion on the subject. Knowing well that early impressions are the most durable, the Ministry of Public Instruction appointed a Commission to report on the most efficacious means calculated to preserve *la jeunesse française* from falling into bad alcoholic habits. The Commission recommends the issuing of a Ministerial circular addressed to schoolmasters, wherein attention is called to the immense importance of the subject, and inviting them to do their utmost to influence their charges against such a noxious habit. It is suggested that a temperance manual, written by recognised authorities, be supplied to schoolmasters in order to serve as guides to them in the preparation of their lectures on the subject. In superior and normal colleges four or five annual lectures on alcoholism will be delivered by medical men. This excellent campaign will be pursued in girls' as well as in boys' schools.

Death of Professor Baillon.

The sudden death, on the 18th inst., is announced of Professor Baillon, who has since the year 1867 filled the chair of Botany and Natural History at the Faculty of Medicine. The deceased was aged sixty-seven years. He was a most accomplished botanist, and a recognised authority. Like many another eminent man, he was, however, as an examiner held in great dread by students, and many are the blank looks I have seen on the faces of aspirants at the *premier doctorat* at the prospect of having to face Professor Baillon. The late Professor Robin, the histologist, shared the same reputation. But it must, in fairness to these eminent teachers, be recollected that young students are frequently unjust in their appreciation of the qualities of examiners, who discharge their duties conscientiously if somewhat rigidly.

French Mineral Waters.

The Minister of Public Works informs us that there are at present being worked 1044 springs in France yielding mineral waters. Alkaline springs head the list, there being 358. Then come sulphur springs (318), saline (219), and chalybeate (149). The richest department in mineral springs is the Puy-de-Dôme, that district containing ninety-six springs in full working order. There are only twenty-three departments which are not endowed with springs. These different watering-places were visited last year by an aggregate of 600 000 persons.

July 23rd.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Cholera Virus and its Antitoxin.

IN the last number of the *Deutsche Medicinishe Wochenschrift* Dr. Ransom together with Professor Behring published a remarkable communication on the cholera virus and its antitoxin. He states that injections of bouillon cultures of cholera bacilli have a typical influence on the temperature of guinea-pigs. A quantity of cholera bacilli, sufficient to kill the animal within twelve hours, makes the temperature first rise for about three hours and then fall till death. If the quantity of bacilli is not large enough to be fatal the temperature, after having fallen for some hours, suddenly rises again. In the most severe cases, where the animal dies within two, four, or six hours, the temperature falls immediately from the moment of the injection till death. From these facts Dr. Ransom concludes that a large amount of dissolved virus must be contained in the culture fluid. He even succeeded in finding the virus in a culture fluid from which he had previously removed the bacilli themselves, and injections of this fluid killed guinea-pigs much more quickly than when the bacilli were still in it. It was thereby proved that the virus was really present in a state of solution in the bouillon culture. Injections of the dissolved virus produce the same symptoms as injections containing bacilli; the animal grows faint, its fur becomes rough, its eyes lose their natural brightness, the skin becomes cold, general trembling ensues, and very soon the temperature falls. From the fluid Dr. Ransom has obtained also a solid substance which produced the same pathological symptoms as the diluted virus. This substance is of extreme virulence; 0·07 of a cubic centimetre kills a guinea-pig within twelve hours, and 0·1 even in fifteen minutes, but when given by the stomach it is innocuous. Dr. Ransom then immunised guinea-pigs, goats, and wethers by the well-known methods of Professor Behring. He states that there is an antitoxic substance in the blood of immunised goats. He made a 4 per cent. solution of the solid virus with the serum of immunised goats, injected this into guinea-pigs, and found that the animals survived even if 0·25 gramme of the solid virus were injected. The antitoxin is efficacious against both the fluid virus and the cultures of cholera bacilli. The blood of goats which have not been rendered immune has no effect at all. If simultaneous injections are made of virulent bacilli into the peritoneal cavity and antitoxin under the skin the animals survive; the same is the case when the serum is previously injected.

The Antitoxin Treatment of Diphtheria.

At the last meeting of the Society for Internal Medicine, before the commencement of the summer holidays, Professor Eulenburg gave a short account of the collective investigation on the antitoxin treatment of diphtheria. There were 10,240 cases reported from hospitals and from practitioners in all parts of the empire. Of 5790 patients treated with the serum 552 (= 9·5 per cent.) died; whilst of 4450 cases treated by other methods 652 (= 14·7 per cent.) died. In regard to age it was stated that patients under two years had a mortality of 21·7 per cent. when treated with antitoxin, and of 39·7 per cent. when treated without it; from two to ten years of age the corresponding mortalities were 8·8 per cent. and 15·2 per cent. respectively. These figures only confirm what has long been known to the majority of medical men; but general astonishment has been caused by the communications of Professor Eulenburg on the results in the case of patients above ten years of age. The death-rate of the antitoxin cases in this category even exceeded a little that of the other patients, the figures being 4·1 per cent. for antitoxin and 3·8 per cent. for the other methods. When antitoxin was used on the first or second day of the illness the mortality was only 4·2 per cent., but when its employment was delayed beyond this the mortality rose to 16·8 per cent. The investigation was closed on April 1st, but will be resumed.

The Health Resorts of the Crimea and the Caucasus.

After Professor Eulenburg's remarks Professor Leyden read a paper on the Health Resorts of the Crimea and the Caucasus. He visited these regions both on the occasion of the last illness of the late Emperor of Russia and subsequently when he was summoned to attend the Crown Prince at his summer residence at Abbas Tuman. Odessa was the first place to which he directed the attention of the audience, as being both a great commercial town and also a resort of bathers. The Black Sea contains very little salt, but near Odessa there is a kind of lagoon, where the water is calm and the proportion of salt is rather higher. Ample facilities for taking mud-baths are provided there. From Odessa Professor Leyden went to the Crimea. The northern coast of this peninsula is very plain, but the southern coast is one of the finest in the world, and by reason of its climate must be regarded as a first-rate health resort. High mountains protect this coast from the northern winds, so that the climate is very like that of the Italian Riviera, although of course the vegetation there is not so exuberant as that by the Mediterranean Sea. The mean temperature lies between that of the Riviera and the Italian lakes. The months of September and October are the most suitable for patients, especially for those who are phthisical; the spring is rather wet, and in winter there are many foggy days. In summer all parts of the south coast are used for bathing. The most fashionable place is Yalta, where about 7000 visitors assemble yearly. The country here offers ample opportunity for pleasant trips to the mountains. Near Yalta is the castle of Livadia, the favourite summer residence of the late Emperor. In speaking of the Caucasus Professor Leyden first mentioned Abbas Tuman, where the Crown Prince usually stays during the summer. It is situated about 1300 metres above the sea level in a narrow valley enclosed by high mountains, so that the duration of sunshine there is comparatively limited, being only four hours at the period of the shortest day. The best time for phthisical patients is June and July; the autumn and winter are very rainy, but there is hardly any fog all the year round. In Abbas Tuman there are also hot springs which are used in three different degrees of warmth for the well-known Russian baths. The water is also employed for inhalations and douches. The accommodation for visitors is good, but the place is not so attractive as Berjoin, which is situated some miles from Abbas Tuman. Professor Leyden also visited the town of Tiflis, the capital of the Caucasian provinces; its hot springs are not used by any patients. This town is remarkable for the great variety of its inhabitants—Armenians, Tartars, Russians, Georgians, and other nationalities the names of which one scarcely ever hears. Not less than forty languages are spoken there. Tiflis, Professor Leyden remarked, must be an excellent place for women desiring to marry, as the number of men is four times that of the women. In Eryvan, a town of about 50,000 inhabitants, there were but two medical men—one military, the other civilian. It seems that the population must be extremely healthy, as the only civilian practitioner of the place enjoys also the dignity of mayor. At the end of his address Professor Leyden pointed out that the Caucasus possesses an enormous number of natural springs of every kind—sulphurous, ferruginous, thermal, and others—which of course might be of great therapeutic value. But as there is, some places excepted, hardly any accommodation for patients, and as travelling is in these regions rather laborious, it is not possible to make use of them. Professor Leyden, who spoke not only as a medical man but also as a traveller, was listened to with close attention, and the society then adjourned till the month of October.

July 22nd.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Pellagra.

WHAT yellow fever is to the shores of the Caribbean, what the *plica Polonica* is to the banks of the Vistula, what cholera is to the delta of the Ganges, pellagra is to Upper Italy watered by the Po. True, it occurs in other quarters of the peninsula, but it appears in progressively diminishing force as one passes from the Alta Italia to the central and southern provinces, while in Upper Italy itself it is much less common in Piedmont than in Lombardy, and much less in Lombardy than in the Venetian territory. From the synoptical table compiled by the Direzione Generale della Statistica of 1886 I find that of the number of conscripts affected by pellagra the district of Padua contributed 13,834; of Treviso, 13,330; of Udine, 7844; of Brescia, 5286; that the district of Florence supplied 316; of Lucca, 170; of Pisa, 64; and of Rome, 29;

while the contribution of the Neapolitan and Sicilian districts was *nil*. In keeping with the above statistics the Venetian territory furnished 55,831 pellagrosi, Lombardy 36,630, and Piedmont 1328. In the years 1879 and 1881 the Direzione Generale dell' Agricoltura summed up the pellagrosi throughout the kingdom as at 97,855 in the former year and 104,067 in the latter. So that the endemic, instead of diminishing, seems to advance *pari passu* with the population—a result which may be explained by the still prevailing uncertainty as to its etiology and the consequent failure of prophylactic legislation. On the other hand, the curative, or I should rather say palliative, treatment now practised on the pellagrosi marks a decided improvement, lowering the mortality from 3390 in 1881 to 1698 in 1884—a fact still further confirmed by the hospital returns, according to which, of the 6025 treated during 1883 in the civil hospitals 923 died, while of 6944 treated in 1884 the deaths were only 780. A less satisfactory result appears in the development of madness due to pellagra—the *phrenosis pellagrosa* of Italian classification—the 1348 subjects to this form of mania in 1877 having steadily risen till in 1883 they numbered 1746. I have said that hygiene has not made up its mind as to the etiology of pellagra, though there is a steadily growing consensus of opinion that the consumption of unsound *gran turco* (maize) is the most powerful factor in its genesis. Misery, involving insufficient alimentation derived from a too unvaried diet, still, however, finds acceptance as its principal cause, and that, too, among sanitarians who come most in contact with the peasantry among whom it is endemic. But the only satisfactory way of solving the difficulty—that of tracing it historically to its first appearance at the close of the sixteenth century and determining the conditions under which it arose and continued, intensively as well as extensively, to develope—has not yet been attempted with the required learning, literary as well as hygienic; pending which, Italian State Medicine concentrates itself on minimising the circumstances favourable to its inception, while encouraging the palliative treatment above referred to. This, as conducted in the so-called Pellagrosarii (special hospitals for the pellagrosi), has its most typical, as well as successful, exemplar in the Lombard town of Inzago, where the Asilo di Pellagrosi, or Pellagrosario (already described in THE LANCET), has recently issued its annual report. From this most interesting document, entitled "Relazione sull' Andamento dell' Istituto dal 1° Ottobre, 1894, al 28° Marzo, 1895," a document which does great credit to its compiler, Dr. Giuseppe Fritz, director of the institution in question, I learn that within the twelvemonth 331 peasants labouring under the disease were admitted; that all of them, their ages ranging from twelve to twenty-eight, were children of pellagrose parents; that they entered in a prostrate condition, a prey to convulsions and hallucinations, often tending to suicide; while suffering from the epidermic lesions, the erythematous outbreaks, the fetid perspirations, the hypertrophy of the nails, the many signs of deep-seated trophic disturbance characteristic of the disease, and that, under treatment, all of them, with two exceptions, were so far rehabilitated physically and mentally as to return to the industrial life they had had to quit. Side by side and hand in hand with the dietetic and therapeutic regimen went steady occupation at various handicrafts, the females doing needlework, shoemaking, and straw-plaiting, and the males being employed in carpentry and outdoor labour—some of them being initiated in scientific agriculture and elementary hygiene. In fact, lectures to the number of 120 were given in these subjects and were fairly well appreciated by not a few of the auditors—sufficiently mastered by some of the exceptionally intelligent. Dr. Fritz demonstrates the value of steady, progressive, continuous work as an adjunct to medical treatment, correcting as it does the brain rust, the paresis of the cerebral energies which idleness even in the healthy always tends to induce. These poor males and females, none of them middle-aged, many of them mere boys and girls, return to peasant life not only relieved of their malady and physically rehabilitated, but intellectually and morally equipped with resources over and above their special agricultural *métier*—a comfort to themselves, a support to their parents, and an example to their neighbours. Milan, I understand, contributes handsomely to the institutions of which Dr. Fritz's at Inzago is a typical specimen, and the return it has had for its philanthropic liberality ought to encourage not only it but its sister towns to throw increased energy into the beneficent work.

Obituary.

JOHN PETER LYONS, L.F.P.S.GLASG., L.M., L.R.C.P. AND S.EDIN.

ASSISTANT COLONIAL SURGEON, HEALTH OFFICER, AND DISTRICT COMMISSIONER, GOLD COAST COLONY.

THE recent wave of unhealthiness on the Gold Coast has numbered among its victims no less than three medical men, who have succumbed within a period of six months from the pernicious effects of the climate while in the discharge of their duties. The deceased officer who is the subject of this notice was the son of Daniell Lyons, surgeon, of Clare Castle, co. Clare, and, after obtaining his diplomas in 1890, acted as resident assistant to Dr. Counsellor of Whalley, by whom he was held in the highest esteem and regard. In the early part of 1893 he left Dr. Counsellor to take up an appointment as an assistant colonial surgeon in the service of the Gold Coast Colony. Here he served at Accra, Ada, Kwitta, and Cape Coast, at which last station he fell ill of the fatal form of fever then prevalent, was invalided to the Canaries on May 10th, but died at sea the following day and was buried at Axim. Mr. Lyons held the dormant commission of a district commissioner of the Gold Coast Colony and acted as health officer of the several districts in which he served. In social life he endeared himself to all by his unostentatious, warm-hearted, good nature, and in his professional career both at home and abroad he won the confidence and esteem of his patients by his cheerful disposition, kindly manner, and firm resolution. In his despatch to the Secretary of State for the Colonies the Governor of the colony states in reference to the deceased officer: "He was one of the most skilful and popular officers we had, and by his death a vacancy that will be difficult to fill has been caused in the department. During the late serious epidemic of sickness at Cape Coast he was for nearly all the time the only medical officer there, and the severe physical and mental strain to which he was subjected no doubt had reduced his resisting power so much that when he himself was attacked he fell an easy victim to the deadly fever."

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the under-mentioned subjects:—

Surgery.—J. S. Challice, London Hospital; H. H. Thomas, Charing-cross Hospital; A. E. Lovitt, London Hospital; C. A. E. Coulthard, St. George's Hospital; M. White, St. Thomas's Hospital; H. G. Jones, St. Mary's Hospital; H. C. Watt, Liverpool; H. England, Sheffield; F. J. Gaine, Cambridge and St. Mary's Hospital; H. C. T. Dalton, Charing Cross Hospital; J. Cryer, Manchester; and C. W. Moorshead, Guy's Hospital.

Medicine, Forensic Medicine, and Midwifery.—W. B. Maurice, St. Mary's Hospital; F. W. Gale, St. Bartholomew's Hospital; W. S. Dibbs, Leeds Hospital; C. M. Beadnell, Guy's Hospital; Ethel M. Gough, London School of Medicine for Women; and H. C. Watt, Liverpool.

Medicine and Forensic Medicine.—C. C. Preston, Manchester, and P. S. Kesteven, St. Bartholomew's Hospital.

Medicine and Midwifery.—H. W. Ramsay, St. Mary's Hospital.

Medicine.—F. E. H. Keogh, St. Mary's Hospital; R. D. Cox, St. Mary's Hospital; and T. H. P. Peers, Charing Cross Hospital.

Forensic Medicine and Midwifery.—A. P. Eldred, St. Mary's Hospital; A. W. Silver, Charing-cross Hospital; and H. England, Sheffield.

Forensic Medicine.—G. S. Taylor, Manchester; A. E. De Vall, Birmingham; and J. M. A. Lamb, London Hospital.

Midwifery.—G. A. Child, St. Thomas's Hospital.

To Messrs. Challice, Thomas, Lovitt, Maurice, Gale, Dibbs, Beadnell, Watt, Kesteven, Keogh, Cox, and Peers was granted the diploma of the society entitling them to practise Medicine, Surgery, and Midwifery.

UNIVERSITY OF GLASGOW.—The following have passed the Final Professional examination for the degrees of Bachelor of Medicine (M.B.) and Master in Surgery (C.M.):—

A.—Candidates who took Pathology in Final Professional Examination:—John Carson Abbott, Thomas Armstrong, Francis James Barker, M.A., Thomas Baxter, Alexander Blair, Henry Albert Boedeker, Thompson Campbell, Vivian Ernest Chang, Henry Davies, William Donaldson, Richard John Edwards, Samuel English, James Findlay, Robert Mackechnie Fraser, M.A., Walter Graham, William Hay, B.D., John Affleck Hope, Albert Barnes Hughes, George Jubb, William James Kerr, William Duncan Miller, Duncan M'Donald, William Jones Mackinnon, Moses Neil MacLay, Farquhar Macrae, Edward James Primrose, M.A., John Rankin, and James Sandilands.

B.—Candidates who passed Pathology in third professional examination:—James Adam, William Alexander, William Allan, Arthur

Roland Anderson, John Anderson, John James Stevenson Anderson, John Lindsay Anderson, William Stephen Baird, Robert Brownlee Barr, Thomas Bell, Henry Broom, William Burns, Samuel Capie, William Clow, M.A., B.Sc., Frederick Burdett Cormick, Samuel Donaldson Cowan, M.A., John Cumming, John Divine, John Hannay Douglas, Matthew Dunning, Joshua Ferguson, M.A., William David Findlay, Albert Alfred Finkelstein, James Liddell Forrest, James Forster, James Reid Foulds, Andrew Fleming Galloway, Thomas Cleator Garrett, John Gillan, M.A., James Drummond Graham, John Alexander Graham, William Grove, Arthur Holt, Robert Howie, Gavin Dalzell Hunter, James Jack, John William Jackson, David Kerr, David Connor Kirkhope, John Kirkwood, William Henry Lang, B.Sc., William Lawson, David Lewis, John Dunlop Louttit, Robert King Miller, John Miller Woodburn Morrison, George Mowat, Adam Cubie Muir, James Andrew Dixon Mulholland, Donald Munro, James M'Cash, Daniel M'Coll, William Milligan M'Cormick, Lewis MacLachlan, Hugh M'Laren, William Macleod, George M'Pherson, M.A., Archibald Russell Oliver, Henry Alexander Pattullo, John Broadfoot Rae, John Neil Robertson, William Scobie, B.D., James Smith, Thomas Orr Spiers, James Sproull, Alexander Stevenson, Hugh Stevenson, Alexander Stewart, Alexander Hamilton Stewart, James Stewart, James Stirling, Hugh Wright Thomson, Joseph Milton Thornley, Charles Kirk Toland, Ernest Alexander Walker, M.A., Henry Allan Watson, M.A., Malcolm Watson, Frederick Wolverson, Archibald Young, B.Sc., and John Young (Glasgow). Women candidates—Emmeline Marie Stuart.

EXHIBITION OF OLD CHINA.—An exhibition of old china, glass, pottery, antique relics, and curios of every description will be held at the Royal Aquarium in September and October next, and the directors appeal for contributions to the loan collection.

PRESENTATION.—Mr. George H. Heald, L.R.C.P. Edin., M.R.C.S. Eng., divisional police surgeon at Leeds, has been the recipient of a purse of gold subscribed by members of the City Police Force, in appreciation of his efficient instruction on first aid to the classes in connexion with the St. John Ambulance Association.

ON the occasion of the address on Art in Relation to Anatomy, to be given during the meeting of the British Medical Association, by Professor W. Anderson, in the Examination Hall on Wednesday next, the subject will be illustrated by a collection of anatomical works, with engravings, from the fifteenth century to the present day, with lantern reproductions of selected examples of ancient statuary and anatomical cuts.

INSTITUTE OF CHEMISTRY. — The following gentlemen passed the examinations for membership held on July 2nd to July 5th, 1895:—Alexander Frankenbacher Fuerst (Fellowship), Ernest Robert Andrews, Charles Kepler Barnes, Augustus Charles Bodey, James Girdwood Bowie, Horace Edgar Bowles, John Buchanan, James Kerry Burbridge, Cecil Henry Desch, Frederick Robertson Dodd, Thomas Guthrie, Charles Alexander Hill, Henry Reginald Hirst, Herbert King, Loxley Meggitt, Howard Charles Ridding, John Blair Warden, Frederick Malcolm Wharton, George Henry Woollatt, and Walter Robins, B.Sc. Lond. (Associateship). The examiners were Professor Dunstan, F.R.S., and Mr. Otto Hehner.

SAD DEATH OF THE MATRON OF THE ROYAL INFIRMARY, NEWCASTLE-UPON TYNE.—Miss Ross was found in a dying condition in her bedroom on Monday morning last. She said she had swallowed a solution of bichloride of mercury in the operating theatre at 3 A.M., and soon after making this statement died, at about 9.30 A.M. An inquiry was held by the coroner on Tuesday, when the following verdict was returned: That death arose from poison taken by Miss Ross, her mind at the time being deranged. Miss Ross had been matron for some four years, and previously had filled two subordinate posts in the nursing department of the Royal Infirmary. Altogether her connexion with the infirmary extended over a period of some twelve years. She was universally respected, had the full confidence of the staff and the affection of the nurses and patients. No one could have been more devoted to her duty. No one had the welfare of the institution more at heart than she had. The post of matron to a large hospital must always be a trying and anxious one, and there is good reason for believing that Miss Ross felt the strain, and that a recent occurrence in connexion with the rearrangement of nurses was a source of trouble and unhappiness to her. How far this little cloud—for really it was nothing more—contributed to her lamentable death can only be a matter of conjecture, but that she took it very much to heart is very well known. The body was removed to and buried at Embleton, a short service having previously been conducted in the infirmary chapel by the chaplain.

ROYAL BRITISH NURSES ASSOCIATION. — The annual meeting of this association was held on Wednesday last under the presidency of Sir James Crichton-Browne. The report for the year showed continuous satisfactory progress. The presence of Princess Christian was made the subject of a vote of thanks, proposed by Sir Spencer Wells and seconded by Dr. Buzzard. Her Royal Highness, who was received with acclamation, proposed a vote of thanks to the chairman.

BANK HOLIDAY RAILWAY ARRANGEMENTS.—For holiday-makers visiting Holland and the Amsterdam Exhibition the Great Eastern Railway Company will issue cheap return tickets on Friday and Saturday, Aug. 2nd and 3rd, *viâ* Harwich and the Hook of Holland. Special facilities are also offered to passengers visiting Germany by the same route, particularly for those travelling direct from the northern and midland counties, whence they can start in the afternoon, or from London in the evening, reaching the chief Dutch cities early next morning, Cologne in the afternoon, and Berlin in the evening, by through carriages, this being the cheapest route to Germany. Short Belgian tours, including Brussels (for Waterloo), the Ardennes, and the picturesque Flemish cities have been arranged *viâ* the Harwich-Antwerp route. Passengers leaving on Friday or Saturday, Aug. 2nd or 3rd, reach the Ardennes next afternoon, and can return on Monday in time to reach London early on Tuesday morning. The General Steam Navigation Company's steamers will leave Harwich for Hamburg on July 31st and Aug. 3rd, returning Aug. 4th and 6th.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

HODGSON, JOHN, M.B. Lond., M.R.C.S., has been reappointed Assistant Surgeon to the Oldham Infirmary.

HORROCKS, HERBERT, M.D. Lond., has been appointed Resident Medical Officer at the Hospital for Consumption and Diseases of the Chest, Brompton, S.W., vice Ballance, resigned.

MACLENNAN, FELIX PRYOR, M.B., C.M. Aberd., has been appointed Medical Officer for the Parish of Assynt and the Quoad Sacra Parish of Stoer, N.B.

MCLEAN, CHAS. J. R., M.D. Edin., D.P.H., has been reappointed Medical Officer of Health to the Yeadon Urban District Council.

RUSSELL, J. L., M.B., C.M. Edin., has been appointed Medical Officer for the Cornholme Sanitary District of the Todmorden Union.

THOMSON, FRED. H., M.B., C.M. Aberd., D.P.H. Lond., has been appointed, pro tem., Medical Superintendent of the Gore Farm Hospital.

WOOD, T. JASON, M.D. Lond., M.R.C.S., L.R.C.P., has been appointed Honorary Assistant Medical Officer to the Bradford Infirmary and Dispensary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ANCOATS HOSPITAL, Manchester.—Resident Junior House Surgeon. Salary £60, with board and washing.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL, 62, Chandos-street, W.C.—Lectureship on Physiology. A minimum of £300 a year is guaranteed for the teaching of physiology, together with a grant for working expenses.

DURHAM COUNTY ASYLUM.—Pathologist and Junior Medical Officer. Salary £100 per annum, with board and lodging. Applications to the Superintendent, Durham County Asylum, Winterton, Ferryhill.

INFIRMARY OF THE CITY OF LONDON UNION.—Assistant Medical Officer at the Infirmary of the Union, situate in the Bow-road. Single, or widower without children. Salary £160 per annum, with furnished apartments at the infirmary, rations, and washing. Applications to the Clerk to the Guardians, 61, Bartholomew-close.

LINCOLN COUNTY ASYLUM, Lincoln.—Assistant House Surgeon for six months. An honorarium of £10, subject to the approval of the weekly Board, and board, residence, and washing provided.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House Surgeon for six months. Board and lodging provided.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officers at several of their Fever and Small-pox Hospitals, unmarried. Salary and emoluments assigned to the offices are £160 per annum, rising yearly by £20 to £200 per annum, with board, lodging, attendance, and washing. Applications to the Clerk to the Board, offices, Norfolk House, Norfolk-street, Strand, W.C.

MORPETH DISPENSARY.—House Surgeon, unmarried. Salary £120 per annum, with furnished house, coals, and gas. Applications to Mr. N. J. Wright, Morpeth, Northumberland.

PARISH OF CAMBERWELL, London.—Medical Officer for the Infirmary at Havil-street, Camberwell, and the Workhouse. Salary £350 per annum, increasing £25 annually to a maximum of £400, with unfurnished house, water, gas, and coals. Applications to the Clerk to the Guardians, 29, Peckham-road, S.E.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon. Board, residence, and washing provided.

ROYAL EAR HOSPITAL, Frith-street, Soho-square, London.—Assistant Surgeon.

ST. BARTHOLOMEW'S HOSPITAL, London.—Physician and an Assistant Physician.

ST. LUKE'S HOSPITAL, London, E.C.—Clinical Assistant for six months. Board and residence provided.

STOKE NEWINGTON, CLAPTON, WEST HACKNEY, AND DALSTON DISPENSARY, 108, High-street, Stoke Newington, N. — Resident Assistant House Surgeon. Salary £50 per annum, with board and lodging.

SURREY DISPENSARY, Southwark, S.E.—Resident Medical Officer. Salary £120 per annum, with furnished apartments, coal, gas, and attendance. Applications to the Secretary, 53, Borough High-street, Southwark.

Births, Marriages, and Deaths.

BIRTHS.

FISHER.—On July 22nd, at Sheil-road, Liverpool, the wife of Alex Fisher, M.B. Edin., of a daughter.

JACKSON.—On July 18th, at Kirk House, Hedon, the wife of John Lowthian Jackson, M.B. Edin., of a daughter.

MCKENZIE.—On June 26th, at Berea, Durban, Natal, the wife of Archibald McKenzie, M.D. Edin., of twin daughters.

ROCHE.—On July 11th, at the Barracks, Newport, Mon., the wife of Surgeon-Major E. A. Roche, A.M. Staff, of a son.

SCHOLEFIELD.—On July 17th, at Eastcomb-villas, Blackheath, the wife of R. E. Scholefield, M.B. Oxon., of a daughter.

TRAVERS-SMITH.—On July 21st, at Trevose, Beckenham-road, the wife of V. E. Travers-Smith, M.D. Dubl., of a daughter.

MARRIAGES.

ANDREWES—HAMER.—On July 25th, at Holloway Congregational Church, Dr. Frederick William Andrewes, of 35, Welbeck-street, W., son of Charles James Andrewes, J.P., of Reading, to Phyllis Mary, daughter of John Hamer, J.P., of 69, Dartmouth Park-hill, N.W.

HICKMAN—THOMPSON.—On July 16th, at St. Martin's Church, Brampton, Cumberland, Henry Richard Belcher Hickman, M.A., M.B. Oxon., only son of William Hickman, F.R.C.S., of Harley-street, Cavendish-square, to Margaret Kate, only surviving daughter of the late James H. Thompson, of Warren Bank, Brampton.

PRANGLEY—DOMMETT.—On July 18th, at St. Paul's Church, Upper Norwood, by the Rev. W. H. Graham, assisted by the Rev. C. W. Prangley (cousin of the bridegroom), Henry John Prangley, L.R.C.P. Lond., M.R.C.S. Eng., of Tudor House, Anerley, only son of the late John Peard Prangley, of Heytesbury, Wiltshire, to Clara Elizabeth, youngest daughter of Charles William Dommett, of Moorfield, Anerley. No cards. At home Sept. 9th, 10th, 11th, and 12th, 3 to 6 P.M.

SKINNER—FREEMAN.—On July 17th, at the Church of St. Mary Abbotts, Kensington, Ernest William Skinner, M.D. Edin., of Bank House, Rye, Sussex, to Isobel Katharine, eldest daughter of George Mallows Freeman, of Phillimore-gardens, Kensington.

SMITH—FISHER.—On July 23rd, at Christ Church, Brondesbury, Ernest Newlyn Smith, M.D. Lond., M.R.C.S., of Forth Lodge, Willesden-green, to Charlotte, eldest daughter of Henry Fisher, of Carrick, Willesden-lane.

STRAIN—SAVORY.—On July 18th, at Palgrave, Suffolk, William London Strain, M.B. Glasg., of São Paulo, Brazil, to Dorothy Maud, second daughter of the Rev. Ernest Lloyd Savory, Rector of the parish.

THOMSON—FRERE.—On July 23rd, at Holy Trinity Church, Marylebone, Herbert Campbell Thomson, M.B. Lond., eldest son of Dr. D Thomson, of Luton, to Constance Emily Temple Frere, fourth daughter of the late Robert Temple Frere, of Harley-street.

USHER—MEYLER.—On July 6th, at Laurel Lodge, Dundrum, county Dublin, Isaac William Usher, Surgeon, Tudor House, Dundrum, to Rosie, youngest daughter of the late Captain Meyler, Dundrum House.

DEATHS.

GOODFELLOW.—On July 19th, at Paignton, Devonshire, Stephen Jennings Goodfellow, M.D., F.R.C.P., in his 86th year.

JACOBSON.—On July 17th, at Sleaford, Thomas Edmund Jacobson, M.R.C.S., L.R.C.P., L.S.A., aged 65 years.

NOAD.—On July 20th, suddenly, George William Noad, M.D. St. And., of Upper Tollington-park, N., in his 67th year.

OWEN.—On July 20th, at 16, Scarsdale-villas, Kensington, in his 84th year, William Buy Owen, L.R.C.S. Edin., L.S.A., formerly of Finchingfield, Essex, and of Cleveland-square, Hyde Park, W.

STEWART.—On July 21st, at Russell-square, W.C., John Macpherson Stewart, Medical Student at University College Hospital, and younger son of the late John Stewart, H.M. Indian Navy, aged 25 years.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the half-year ending June, which was given in the number of the 29th ult., completed the first volume of the year 1895. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the first half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18s.

Cases for binding the half year's numbers are also ready. Cloth, gilt lettered, price 2s.

To be obtained on application to the Manager, accompanied by remittance.

THE LANCET AND ACCIDENT INSURANCE.

A LITHOGRAPHED CIRCULAR LETTER, emanating from an office in the Strand district, is being sent to members of the medical profession, offering to supply them with THE LANCET, in conjunction with an accident insurance policy. The Proprietors of THE LANCET are in no way connected with the scheme (of which they cannot approve), and were not aware of its inception until their attention was called to it by a reader who had received the circular.

"LORD BYRON'S LAMENESS."

To the Editors of THE LANCET.

SIRS.—In answer to the inquiry of "M.B., C.M." in THE LANCET of July 20th I beg to say that a communication from the pen of the late Dr. Chalmers, accompanied by a pair of woodcuts of casts of Lord Byron's foot, appeared in THE LANCET about twelve years ago. I have not the exact date, but it can be easily found by looking through a file of THE LANCET from 1880 to 1885. I remember getting the wood blocks made for Dr. Chalmers during the time I was his assistant, between those years. I am, Sirs, yours truly,

Vincent-square, S.W., July 22nd, 1895. LAUNCELOT ARCHER.

*** The letter with woodcuts of which Mr. Archer has kindly reminded us will be found in THE LANCET for 1883, vol. i., p. 975. Another communication about Hunter is in the same volume, p. 1023.—ED. L.

Aspirant will find a list of the principal appointments held by medical men at p. 20 and following pages of the Medical Directory for 1895. Vacancies are almost always advertised both in the medical and local lay press, and a special column under the heading "Vacancies," giving a summary of all such advertisements appearing in our columns, is published in THE LANCET week by week.

AN ADVERTISEMENT OF A HOSPITAL.

THE *Times* of July 25rd, 1895, contains the following advertisement:—

ANYBODY in LONDON having spare time on Monday, 22nd, or Tuesday, 23rd July, is INVITED to VISIT the POPLAR HOSPITAL for ACCIDENTS between 2 and 7 o'clock.

Newly built. Newly fitted. No debt.
No horrors. No infection.

Best Way.—Drive or bicycle, 45 minutes from West-end.
Another Way.—Blackwall Omnibus from Piccadilly-circus, 75 minutes.
Another Way.—Train to Aldgate, thence by yellow tram.

We do not think this a very fitting advertisement, inasmuch as it contains remarks that might tend to keep charitable visitors away from other hospitals. Moreover, it is not dignified, and savours too much of the method of advertisement of "Richardson's Show" or a Cheap Jack. Enterprise should ever be tempered by taste.

Trouville.—Without judging of the merits of the difference between our correspondent and his principal, we should not advise him to take any legal steps to demand more than a month's notice. On the face of the documents (letters) this was the kind of arrangement to which he seemed to consent and, in the absence of any other form of contract, by which he would be bound.

F.M.—We think the junior should receive his share of the receipts and moneys owing at the branch prior to the dissolution. He would act wrongly if he persisted in staying. The details should be amicably arranged.

"ALLEGED TOUTING BY A PUBLIC VACCINATOR."

To the Editors of THE LANCET.

SIRS,—In reply to your comments in THE LANCET of July 20th I write to make an important correction. You say that my letter of July 1st "places a different complexion upon the matter." Do you mean a complexion different from that given by Mr. Eccles? In that case I reply that it certainly does. Or do you mean a complexion different from that given in the letters from Dr. Slane and myself, already in your hands before I wrote that letter of July 1st? In that case I reply that it certainly does not. Throughout all the correspondence we have given only one complexion to the matter. The different complexion which you now see, but never before saw brought out in any of the letters submitted to you, has been given by your importing of the words "with regard to defaulters," which with very little trouble you will soon satisfy yourself have not been used by me. Nowhere in any letter have I gone so far as to speak of the patients referred to by Mr. Eccles as defaulters. In view of this correction your plea in extenuation of your severe censure of Dr. Slane, "that it was not previously brought to your notice," and "that it was not brought out in any of the previous letters submitted to you," "that his visit had been made only in consequence of representations made to him by the vaccination officer with regard to defaulters," is not relevant to the evidence before you. What was really brought out in those letters, in addition to the emphatic denial of the charge of touting, and reiterated previously to July 1st, for the information of Mr. Eccles and yourself, was the fact that Dr. Slane was instructed by the authority to call upon all the cases referred to by Mr. Eccles and his witnesses, and was furnished with a list of the names for the purpose. See Dr. Slane's letters of May 26th and June 18th. My last letter, commenting *seriatim* on your remarks in your issue of June 29th, repeats this information. It does not seek to rebut the charge of Mr. Eccles on the ground that the patients of Mr. Eccles were defaulters. It deals with the evidence placed in your hands with my letter of June 19th, and asks you to answer two straight questions, which in effect are, first, to justify Dr. Slane in an ample, generous manner in respect of the disgraceful charge which you have unjustly allowed to be made against him in your journal; and, secondly, to say whether, in view of the correspondence before you, you still adhere to your statement that Mr. Eccles "was perfectly justified in making his complaint." You aided Mr. Eccles in affixing an obnoxious name to a professional neighbour while he was yet ignorant of having given any cause of offence. With questionable haste and more than questionable morality you supplied Mr. Eccles with a weapon of retaliation outside the profession before you yet knew if the charge could be substantiated. Of this your client made premature use, and, in my opinion, vindictive use. And you justified him. Your comments throughout have been directed to Dr. Slane. Have you nothing to say to the part Mr. Eccles has taken in this matter? Since May 18th you have kept one party, the innocent one, in your pillory. Would it not be an act of justice to give the other now his turn according to his deserts—not vindictively, but for his better instruction in the first elements of applied morals? In your comments of the 20th inst. you are silent on the course Mr. Eccles has pursued in making his unfounded charge. Why do you show such tender reserve in his case while you have not spared hard blows to his neighbour, whom he has unjustly accused?

I am, Sirs, yours truly,
Driffield, July 22nd, 1895. J. LUMSDEN BELL.

*** We have again read the copies of the letters placed in our hands by Dr. J. Lumsden Bell. Dr. Slane's letter of May 26th contains nowhere the information that he "was instructed by the authority to call upon all the cases referred to by Mr. Eccles and his witnesses." Dr. Slane's letter of June 18th contains the words, "To your long details of your study of the Vaccination Acts I added the information you seemed to be ignorant of—that I had orders from the authority to call upon all whose names were supplied to me as living over two miles from my house." Unfortunately, Dr. Slane did not add, and we did not see, that these were "all the cases referred to by Mr. Eccles." Dr. J. Lumsden Bell's letter of June 19th contains the words, "He (Dr. Slane) had always confined himself strictly to the lines of his instructions." His letter of July 1st, being more explicit, "placed a different complexion upon the matter" by controverting Mr. Eccles and adding to Dr. Slane's communications a clearness that they had not previously possessed for us, though we seem not to have entirely understood him this time. We cannot admit that it was Dr. Slane's duty to visit every child born. He ought only to visit those beyond the statutory age reported to be in default; and surely this expression of opinion is relevant. We cannot see in our comments the animus that Dr. J. Lumsden Bell sees in them, though we deeply regret that we should have reflected in an unjustifiable manner upon Dr. Slane. We reported not on facts, but on alleged facts. We read carefully the correspondence submitted to us, and our comments were in accordance with our comprehension of it. When we believed ourselves to have been misinformed, we at once said so, and withdrew the offending epithet.—ED. L.

Mr. Stanley E. Ward.—Our correspondent would probably find the information he seeks in Hunter's Imperial Gazetteer. He might write to the Director-General of the Army Medical Department, 18, Victoria-street, Westminster, or to the India Office, and inquire whether there is any recent official publication bearing upon the subject.

HOUSE SURGEONS AND CORONERS' INQUESTS.

To the Editors of THE LANCET.

SIRS,—I had just completed my term of office as house-surgeon at Guy's Hospital on June 30th. On July 1st I was summoned to give evidence relating to a case that had died three days previously. The case, which I need not go into, raised a very important question, in consequence of which the evidence was of a detailed and lengthy character. The coroner adjourned the case for a week. In the meanwhile I had to refuse a remunerative locum tenency in the North of England, and had to take another instead in the suburbs. I had to pay my travelling expenses to London, and to spend nearly two hours in the court. The coroner asked me my opinion as an expert about evidence given by another medical man. Is he justified in putting any but questions as to facts? When I claimed my fee as being no longer an officer of the hospital, he regretted that the law of the London County Council did not allow it. Do you not think that it is time that means should be taken to remedy such an injustice, which is only too liable to recur?

I am, Sirs, yours faithfully,
July 12th, 1895. EX H.S.

"THE TITLE OF 'DR.'"

To the Editors of THE LANCET.

SIRS,—There have been several letters of late in THE LANCET *re* the using of medical titles other than those to which the users are legally entitled. I think that to the general public the matter is of slight importance, it being very far from the case that the holders of the higher qualifications are the most successful practitioners, but from a strictly professional point of view it is a mean action to describe oneself on a brass plate by any other title than one's qualification warrants—yet how commonly it is done. In this neighbourhood we have an L.S.A. who puts "Dr. ——" on one plate and "Mr. ——, physician and surgeon," on another; an M.R.C.S., L.S.A., who calls himself "Dr."; and another M.R.C.S., L.R.C.P., who has "Dr. ——, physician, surgeon, and accoucheur." None of them do large practices.

I am, Sirs, yours truly,
July 23rd, 1895. M.R.C.S.

*** We have received many letters on this subject, a selection of which we shall print later.—ED. L.

MR. LUKE FILDES' "THE DOCTOR."

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me whether it is possible to obtain an engraving or other good representation of Mr. Luke Fildes' picture of "The Doctor," which was exhibited at the Royal Academy a few years since? I should like to know where it can be obtained and the price.

I am, Sirs, yours truly,
July 22nd, 1895. J. W., M.D.

*** The publishers are Messrs. Thomas Agnew and Sons, Art Publishers, 39B, Old Bond-street, W.—ED. L.

THE POST OF SURGEON ON THE CABLE TELEGRAPH SHIPS.

To the Editors of THE LANCET.

SIRS,—I shall take it as a very great favour if any of your readers will kindly give me some information concerning the post of surgeon on board one of the cable telegraph ships, the pay received, length of voyage, &c.

I am, Sirs, yours faithfully,
July 24th, 1895. H. A. B.

PRACTICE IN ALGIERS.

To the Editors of THE LANCET.

SIRS,—Will you or some of your readers kindly tell me whether it is necessary to have a French diploma to practise in Algiers?

I am, Sirs, yours truly,
Sea View, I.W., July 24th, 1895. A. E. C.

ELECTROLYSIS.

W. J. R.—The apparatus necessary comprises a constant-current battery, sufficient to give a current of four to five milliampères through the resistance of the body—i.e., about 3500 ohms,—the usual leads, a fine electrolysis needle with a make and break key in the handle, a pair of epilation forceps, and a pad for the indifferent electrode. Our correspondent will find every information in "Medical Electricity," by H. Lewis Jones, M.D. (London: H. K. Lewis).

Louis.—The queries are too vague to answer. The most suitable country must depend upon our correspondent's health, temperament, amount of capital, number of friends, and many other circumstances that will occur to him. If he will put to us some specific question and will give us full information we will afford him all the assistance in our power.

"THE CLIMATE OF THAYETMYO."

To the Editors of THE LANCET.

SIRS,—I have a friend on a visit here temporarily, on leave of absence from his duties in Rangoon, Burma, after two years' residence there. He tells me that he spent two nights in Thayetmyo a short time ago on his way to Mandalay, in Upper Burma. Thayetmyo is a fairly healthy up-country district, with good cold weather in November, December, and January. It is a jungle district, but there are hills (as you may see marked on the maps) 1686 feet above sea level within a short distance, but not available for residence. Thayetmyo is easily accessible from Rangoon, one day's journey—fifty miles by rail to Prome and twenty by good river steamer. Steamers run two or three times a week. It is a large native town, containing but a few Europeans—probably only twenty or thirty. The Indian hill stations are within four or five days' distance of Rangoon.

My friend is about to marry and take his wife to Rangoon, where he expects to remain a few years longer. There are so few English ladies out there—i.e., at Thayetmyo—that it is difficult to form an idea as to their health or that of children. He is not in the profession.

I hope this brief account of Thayetmyo will be of some use to "M.D." I am, Sirs, yours faithfully,

July 23rd, 1895. E. A.

*** Yule's "Mission to the Court of Ava" gives a variety of information about the climate &c. of the district between Rangoon and Ava.—ED. L.

CUM *v.* SINE CURRICULO DENTAL DIPLOMAS.

To the Editors of THE LANCET.

SIRS,—It will remove a considerable amount of doubt in the minds of many dental surgeons if you will be good enough to express an opinion upon the following.

A somewhat unusual case having been brought under A.'s notice, he requested that he might have a consultation, explaining at the time that he would be glad to meet any properly qualified practitioner. The name suggested was that of a dentist holding a *sine curriculo* licence, and A. declined the consultation, another name being substituted, which gave mutual satisfaction. A. holds that no surgeon or medical man would entertain for a moment the idea of meeting a diplomate or licentiate holding his licence under such circumstances (were that possible), and considers that dental surgeons should regard the matter from a similar standpoint. Is A. right? Yours faithfully,

July 15th, 1895. PERPLEXED.

*** Providing that the dentist holding the *sine curriculo* licence carried on his practice in a professional manner, we do not think that A. should have declined the consultation.—ED. L.

THE FIRST NUMBER OF "THE LANCET."

To the Editors of THE LANCET.

SIRS,—I have just noticed the advertisement in your issue of the 6th inst., offering £1 for a copy of the first number of THE LANCET, which must be complete *with its cover*. It would be interesting historically to know whether the advertiser has embarked, in his search for this *rara avis*, on a wild-goose chase, or whether Mr. Clarke is wrong in stating in his Autobiographical Recollections that the number in question had no cover. I am, Sirs, yours truly,

Paris, July 23rd, 1895. HISTORICAL.

AN IMPOSTOR.

To the Editors of THE LANCET.

SIRS,—Allow me to warn your readers against an American who professes to be a nephew of Professor Sayre of New York, and endeavours to borrow money as a temporary loan. Yours obediently,

July 23rd, 1895. CHIRURGUS.

*** A man called at our offices on Monday last, and tried to borrow a small sum to enable him to cable to his uncle in America. Doubtless this is the gentleman to whom our correspondent refers.—ED. L.

"WANTED, ADVICE ON HEALTH RESORTS."

To the Editors of THE LANCET.

SIRS,—Having had patients abroad for rheumatism and also nephritis, I should advise to your correspondent, "O. H.," Las Palmas, Grand Canary, as a good winter resort—equable climate, good hotels, and cheerful society and amusements. It is cheaper than Egypt, and the Santa Catalina Hotel has an agency in London. One patient who was at Corfu last winter does not recommend it. Yours truly,

July 19th, 1895. M.D.

A QUESTION OF PROPER PROCEDURE.

To the Editors of THE LANCET.

SIRS,—Can you give me some advice on the following point? A. is called to attend a lady as her regular adviser. The case is serious, and a consultant's opinion is sought. This from its gravity alarms the friends, who ask for a second general practitioner to watch the case in company with A. On the advice of A., B. is called, who happens to live nearer to the patient than A. For this and perhaps from fancied preference on the part of the patient, B. is frequently called to visit the patient alone for fancied and occasional dangers. He is also asked to prescribe, and a preference is shown for some of his prescriptions over those of A. How is B. to act? Is he to decline to visit and prescribe, or to prescribe only in A.'s absence? Yours faithfully,

July 22nd, 1895. P.

*** B.'s position is a very undesirable and difficult one. He can only do his best. Obviously he must take every opportunity of showing deference to A., by requiring his sanction wherever practicable to changes of treatment, and in every other way. On the other hand, A. must consider B.'s difficulties, and make allowance for them.—ED. L.

"PRACTICE IN NEW ZEALAND."

To the Editors of THE LANCET.

SIRS,—If your correspondent, "M.B. & C.M." who desires information concerning medical practice in New Zealand, will privately send me his address, I will be happy to supply him with some facts on which he may confidently rely.—I am, Sirs, yours faithfully,

ALFRED WRIGHT, L.R.C.P. ED., &c.

22, Steyne, Worthing, July 23rd, 1895.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 25th, 1895.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 19	29·62	W.	62	59	123	72	59	0·42	Cloudy
" 20	29·57	S.W.	59	57	95	66	58	0·11	Raining
" 21	29·63	S.W.	62	60	106	65	57	0·33	Raining
" 22	29·64	N W.	62	58	117	71	55	0·90	Cloudy
" 23	29·86	S.W.	61	57	116	73	54	0·03	Cloudy
" 24	29·67	S.W.	65	63	107	73	56	0·45	Cloudy
" 25	29·91	S.W.	66	64	95	70	64	...	Cloudy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Gt. Northern Central (2.30 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North West London (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY.—SOCIETY OF MEDICAL PHONOGRAPHERS (20, Hanover-square).—4 P.M. First General Meeting. Inaugural Address by the President (Dr. Gowers). The meeting will be open to all members of the medical profession.

During the week marked copies of the following newspapers have been received:—*Birmingham Post, Waterford Chronicle, Goole Times, Grimsby News, Walsall Advertiser, Scotsman, Blackburn Standard, Fife Free Press, Man of Ross, Freeman's Journal, Manchester Guardian, Sheffield Independent, Bristol Times, Express and Star, Birmingham Mail, Times of India, Brighton Guardian, Newark Herald, Bucks Herald, South American Journal, Dorset and Somerset Standard, Kerry Weekly Reporter, Shrewsbury Chronicle, Medical Press, Citizen, Courrier de la Presse, Guy's Hospital Gazette, Singapore Free Press, Bath Gazette, Oswestry Advertiser, New York Herald, Bombay Gazette, Nairnshire Telegraph, Liverpool Courier, Hereford Times, Daily Graphic, Scarborough Post, Southampton Echo, Cromer Post, Lowestoft Standard, Eastern Morning News, Brisbane Telegraph, &c., &c.*

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